

THE  
AGRICULTURAL STATISTICS  
OF  
IRELAND,

FOR THE YEAR

1888.

DIVISION OF LAND; ACREAGE UNDER CROPS;  
NUMBER AND SIZE OF HOLDINGS; RATES OF PRODUCE;  
NUMBER AND AGES OF LIVE STOCK;  
EXPORTS AND IMPORTS OF LIVE STOCK; HONEY PRODUCED;  
NUMBER OF SCUTCHING MILLS; SILOS AND ENSILAGE;  
THE WEATHER.

---

*Presented to both Houses of Parliament by Command of Her Majesty.*

---



DUBLIN:

PRINTED FOR HER MAJESTY'S STATIONERY OFFICE

BY

ALEXANDER THOM & CO. (LIMITED),

And to be purchased, either directly or through any Bookseller, from  
BYRE and SPOTTISWOODS, East Harding-street, Fetter-lane, E.C., or 32, Abingdon-street,  
Westminster, S.W.; or ADAM and CHARLES BLACK, 6, North Bridge, Edinburgh;  
or HODGES, FIGGIS, and Co., 104, Grafton-street, Dublin.

1889.

[C.—5785.] Price 1s. 3d.



# CONTENTS.

## INTRODUCTORY REMARKS:—

### PART I.—TILLAGE; MEADOW AND CLOVER; &c.:

TABLE I.—Average under Crops in 1887 and 1888, with proportionate Area under each Crop.	4
" II.—Extent of Land and proportionate Area under Crops, Grass, Fallow, Woods and Plantations, and Bog, Waste, Water, &c., in each year from 1879 to 1888.	5
" III.—Number of Holdings, by Counties, for each County and Province, in 1887 and 1888.	8
" IV.—Approximate Return of the Number of Occupiers resident in each County and Province in 1888, classified according to the total extent of land held.	9
" V.—Number of Holdings in each Province in 1841, 1851, 1861, 1871, 1881, and 1888, according to the classification of the Census Commissioners of 1841.	10

### PART II.—PRODUCE OF THE CROPS:

" VI.—Total Produce of the principal Crops in 1887 and 1888, and the Increase or Decrease in the latter year.	11
" VII.—Estimated Average Produce per Statute Acre of the principal Crops in 1887 and 1888, and the Increase or Decrease in the latter year.	12
" VIII.—Extent under each of the principal Crops in Statute Acres, the Total Produce, and the Average Yield per Acre, for each year from 1879 to 1888.	13

### PART III.—LIVE STOCK:

" IX.—Number and Ages of Live Stock in 1887 and 1888, and the Increase or Decrease in each description for the latter year.	13
" X.—Number of Live Stock in each year from 1879 to 1888.	14
" XI.—The proportion per cent. of Horses, Cattle, Sheep, and Pigs according to age, from 1879 to 1888.	14

Exports and Imports of Live Stock.	14
Honey produced in 1887.	15
Number of Scutching Mills.	15
Siles and Ensilage.	17

## SUMMARY TABLES.

### TILLAGE; MEADOW AND CLOVER; &c.:

TABLE I.—Number of Holdings, their Size in Statute Acres, and the Division of Land in each County and Province in 1888.	18
" 2.—Proportion per cent. of Land, under Crops, Grass, Fallow, Woods and Plantations, Bog and Marsh, Barren Mountain Land, and Water, Roads, Fens, &c., in each County and Province.	18
" 3.—Number of Holdings and Size in Statute Acres, and the Division of Land in 1880 by Poor Law Unions.	19
" 4.—Proportion per cent. under Crops, Grass, Fallow, &c., by Poor Law Unions.	21
" 5.—Extent of Land under Crops in 1885, Valuation in 1880, and Population in 1881, by Counties and Provinces.	22
" 6.—Produce of the Crops in 1888, by Counties and Provinces.	26
" 7.—Extent of Land under Crops in 1888, Valuation in 1880, and Population in 1881, by Poor Law Unions.	25
" 8.—Produce of the Crops in 1888, by Poor Law Unions.	30
" 9.—Number of Holdings exceeding One Acre, the extent of Land under Crops in each year, from 1879 to 1888, by Counties and Provinces.	26
" 10.—Average Rates of Produce of Crops per Statute Acre, in each year from 1879 to 1888, by Counties and Provinces.	27

### LIVE STOCK:

" 11.—Number of Stockholders, and Quantity of Live Stock in 1880, by Counties and Provinces.	44
" 12.—Number of Stockholders and Quantity of Live Stock in 1888, by Poor Law Unions.	45
" 13.—The Quantity of Live Stock in each year from 1879 to 1888, by Counties and Provinces.	45
" 14.—Total Area under Potatoes, and the Extent in Statute Acres under each description of that Crop planted in 1888, by Counties and Provinces.	44
" 15.—Total Area under Potatoes, and the Extent planted of each description of that Crop in 1880, by Poor Law Unions.	53
" 16.—The Average Rate of Produce per Acre of each description of Potato planted in Ireland in 1888, by Counties.	47

OBSERVATIONS of District-Inspectors of the Royal Irish Constabulary, and of Sergeants of the Metropolitan Police, on the probable cause of the good or bad yield of the Crops in each of their Districts.	58
---	----

## APPENDIX.

DETAILS REGARDING STILES AND ENSILAGE furnished by Owners and Occupiers of Land.	65
ABSTRACT of the METEOROLOGICAL OBSERVATIONS registered at the Ordnance Survey Office, Phoenix Park, Dublin.	120
Remarks on the Weather of the year 1888, by J. W. Moore, Esq., M.D., F.R.S.E., &c.	124



# OBSERVATIONS

ON THE

## AGRICULTURAL STATISTICS OF IRELAND.

FOR THE YEAR 1888.

TO HIS EXCELLENCY CHARLES STEWART VANE TEMPEST, MARQUESS OF LONDONDERRY,

&c., &c., &c.,  
LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

MAY IT PLEASE YOUR EXCELLENCY,

I have the honour to present to your Excellency the following Report and detailed Tables concerning Agriculture in Ireland for the year 1888, which have been compiled and arranged in the same manner as those for the previous year.

A review of the detailed Tables confirms the observations I made when presenting the General Abstracts in August, and the Produce Returns in December of last year.

The following is an analysis of the information contained in the tables:—

### PART I.—TILLAGE; MEADOW AND CLOVER; &c.

The acreage under Crops, Grass, Fallow, Woods and Plantations, and Bog, Waste, Water, &c., in 1887 and 1888, was as follows:—

Division of  
land, 1887  
and 1888.

	1887	1888.	Increase or Decrease between 1887 and 1888.	
			Increase.	Decrease.
Under Crops, including Meadow and Clover, . . .	<i>Acres.</i> 5,463,687	<i>Acres.</i> 5,140,683	75,026	—
“ Grass, or Pasture, . . . . .	10,649,507	9,805,097	—	144,410
“ Fallow, . . . . .	12,746	15,615	2,867	—
“ Woods and Plantations, . . . . .	339,363	331,587	2,224	—
“ Bog, Waste, Water, &c.,* . . . . .	4,871,480	4,535,773	64,293	—
Total,† . . . . .	20,328,753			

The area under Crops in 1888, compared with 1887 shows an increase of 75,026 acres—there being a decrease of 3,136 acres in tillage, and of 8,703 acres under hay on clover, sainfoin, and grasses under rotation; while there is an increase of 86,365 acres under hay on permanent pasture or grass not broken up in rotation. There is a decrease of 144,410 acres under Grass, while there is an increase of 2,867 acres of Fallow land, of 2,224 acres under Woods and Plantations, and of 64,293 acres under Bog, Waste, Water, &c.

Of the 4,935,773 acres given as under “Bog, Waste, Water, &c.” in 1888, 1,772,450 acres were enumerated as “Bog and Marsh,” 2,279,971 acres as “Barren Mountain Land,” and 884,352 acres as “Water, Roads, Fences, &c.” Compared with 1887 “Bog and Marsh” appears to have decreased by 18,084 acres, “Barren Mountain Land” shows an increase of 66,946 acres, and “Water, Roads, Fences, &c.” an increase of 15,431 acres.

The area and proportionate extent of each crop in 1887 and 1888, with the increase or decrease in the latter year, are given in the following Table (I), from which it appears that, compared with 1887, there was last year a net increase in cereals of 8,482 acres, wheat having increased by 31,832 acres, barley by 8,760 acres, and bere and rye by 3,250 acres, while oats decreased by 34,197 acres, and beans and pease by 1,203 acres.

In green crops there was a net increase of 5,053 acres, potatoes having increased by 7,527 acres, mangel wurzel by 4,016 acres, and vetches and rape by 1,393 acres, while turnips decreased by 5,886 acres, cabbage by 1,165 acres, and carrots, parsnips, and other green crops by 932 acres.

Flax shows a decrease of 16,671 acres, and meadow and clover an increase of 78,162 acres.

In 1888, 30.6 acres in every 100 under crops were under cereals, 24.0 under green crops, 2.2 under flax, and 43.2 under meadow and clover.

\* Including 123,055 acres under water.

† Excludes of 696,735 acres under the larger towns, lakes, and highways.



Varieties of  
Potatoes.

POTATOES.—The tables relating to the potato crop point to several important conclusions. It will be observed (See Table 14, p. 34) that of the 804,366 acres planted with potatoes, 78·1 per cent. belonged to one variety, namely, "Champions," showing no appreciable difference in the percentage of this variety as compared with the previous year. Of the total area under potatoes 7·0 per cent. was under Flounders, 4·3 per cent. under Skerry Blues, 2·2 per cent. under White Rocks, 2·1 per cent. under Magnum Bonums, 1·1 per cent. under Scotch Downs, 1·0 per cent. under Kemps, and 4·2 per cent. under all other varieties. It will be seen by a reference to Table 16 that not only was the Champion variety the one planted in greatest quantity, but that it was generally the most prolific in its yield.

Table 16 also points out the best potato-growing districts in Ireland, and the varieties which appear to thrive best in particular counties.

Of the total extent under crops in 1888, 83·8 per cent., or over four-fifths, were under three crops—oats (34·9), potatoes (15·7), and meadow and clover (43·2).

(TABLE I).—The Acreage under Crops in 1887 and 1888, and the Increase or Decrease in the latter year:—

Crops.	1887.	1888.	1888.		Crops.	1887.	1888.	1888.	
			Increase.	Decrease.				Increase.	Decrease.
	Acres.	Acres.	Acres.	Acres.		Acres.	Acres.	Acres.	Acres.
Wheat, . . .	67,181	89,013	81,832	—	Flax, . . .	130,294	112,613	—	16,671
Oats, . . .	1,315,005	1,380,858	—	36,197					
Barley, . . .	162,169	170,222	8,760	—	TOTAL UNDER				
Bern and Bye, . . .	11,032	14,322	3,290	—	YIELDS, . . .	2,921,839	2,918,703	—	3,136
Burnside Passes, . . .	7,026	5,823	—	1,203					
TOTAL EXTENT					Meadow and				
under GREEN					Clover (—				
CROPS, . . .	1,662,403	1,670,945	8,482	—	Clover, Bala-				
					fold, and				
Potatoes, . . .	796,929	804,366	7,627	—	Garnes	636,655	627,752	—	8,703
Turnips, . . .	300,123	294,237	—	5,886	under Ro-				
Manget Warzel					tation, . . .				
and Beet Root,	41,753	45,749	4,016	—	Permanent				
Cabbage, . . .	43,673	42,508	—	1,165	Pasture or	1,607,383	1,594,248	86,865	—
Vegetables and					Grass not				
Rape, . . .	13,618	15,011	1,393	—	broken up				
Carrots, Pars-					in Ro-				
nips, & other					tation, . . .				
Green Crops, . . .	32,604	32,074	—	530	TOTAL EXTENT				
under GREEN					under CROPS, . . .	5,050,637	5,140,633	75,026	—
CROPS, . . .	1,229,692	1,234,145	5,053	—					

The Proportionate Area under each of the above Crops in 1887 and 1888:—

Crops.	Proportion per cent.		Crops.	Proportion per cent.	
	1887.	1888.		1887.	1888.
Wheat, . . .	1·5	1·9	Cabbage, . . .	0·6	0·6
Oats, . . .	25·0	24·0	Vegetables and Rape, . . .	0·3	0·3
Barley, . . .	3·2	3·4	Carrots, Parsnips, and		
Bern and Bye, . . .	0·2	0·3	other Green Crops, . . .	0·6	0·6
Burnside Passes, . . .	0·1	0·1	UNDER GREEN CROPS, . . .	24·3	24·0
UNDER GREEN CROPS, . . .	30·8	30·6	Flax, . . .	2·6	2·2
Potatoes, . . .	15·7	15·7	Meadow and Clover, . . .	42·3	43·2
Turnips, . . .	9·0	9·7	TOTAL, . . .	100·0	100·0
Manget Warzel and Beet					
Root, . . .	0·8	0·9			

Tables showing the extent of land under crops in 1888 by Counties and Provinces, and by Poor Law Unions, and from 1879 to 1888 by Counties and Provinces, are given at pages 22, 26, and 34 respectively.



The extent of land under grass in 1888 (*exclusive of that under meadow and clover*) was 9,905,097 acres, or 48·7 in every 100 of the entire country, against 10,049,507 acres or 49·4 per cent. in 1887. The relative proportions under grass in each Province were—in Munster 53·1 per cent. in 1888, and 54·5 per cent. in 1887; Leinster 53·0 per cent. in 1888, and 54·1 per cent. in 1887; Connaught 47·1 per cent. in 1888, and 47·4 per cent. in 1887; and Ulster 41·3 per cent. in 1888, and 41·1 per cent. in 1887.

Grass-  
Land, 1887  
and 1888.

There appears to have been a decrease of pasture land in 1888 in Leinster of 1·1 per cent. of the total area of the province, in Munster of 1·4 per cent., and in Connaught of 0·3 per cent.; while there has been an increase of 0·2 per cent. in Ulster.

Of the counties—Clare, Limerick, Meath, and Westmeath had each above 60 acres in every 100 of their entire area under grass in 1888; Fermanagh, Kilkenny, Roscommon, and Tipperary had above 55 and under 60 acres; Carlow, Cavan, Cork, Kildare, Leitrim, Longford, Queen's, Sligo, Waterford, and Wexford had from 50 to 55 acres; Antrim, Dublin, Galway, Kerry, King's, Monaghan, Tyrone, and Wicklow had above 40 and under 50 acres; and Armagh, Donegal, Down, Londonderry, Louth, and Mayo, had over 30 and under 40 acres in every 100 acres under grass in 1888. Only 31·7 per cent. of the total area of Donegal was enumerated in 1888 as under grass, while Meath shows the highest percentage, 67·6.

Grass-  
Land in  
1888.

The area of each County and Province, and the extent and percentage under grass in 1888, are given at page 18.

Of the total area of Ireland (20,328,753 statute acres),\* the land under grass in 1888 was, as already stated, nearly one-half. It appears from the succeeding Table (II.) to have decreased from 50·2 per cent. of the total area in 1879 to 48·7 in 1888, but during the ten years the proportion of grass varied from 50·9 per cent. in 1884 to 48·7 in 1888.

Division of  
Land, 1879-  
1888.

In Crops a decrease took place from 5,121,833 acres in 1879, or 25·2 per cent. of the total area, to 4,872,744 acres, or 24·0 per cent. in 1888, since which date there has been annually a slight increase, the extent for 1888 being 5,140,683 acres, or 25·3 per cent. of the total area.

Fallow or uncropped arable land amounted to 12,939 acres in 1879, and 15,613 acres in 1888.

Woods and Plantations exhibit a slight decrease in the decade, viz., from 336,846 acres to 331,587 acres.

In "Bog, Waste, Water, &c." an increase is shown—from 4,544,975 acres in 1879, to 4,935,773 acres in 1888, or 1·5 per cent. of the total area.

TABLE II.—The Extent of Land in Statute Acres, and the proportionate Area, under Crops, Grass, Fallow, Woods and Plantations, and Bog, Waste, Water, &c., in each Year from 1879 to 1888, also the Number of Holdings exceeding 1 Acre:—

Years.	Number of Holdings exceeding 1 Acre.	EXTENT OF LAND IN STATUTE ACRES UNDER						PROPORTIONATE AREA PER CENT. OF TOTAL					
		Crops (including Meadow and Ground).	Grass.	Fallow.	Woods and Plantations.	Bog, Waste, Water, &c.	Total.	Crops (incl. Meadow and Ground).	Grass.	Fallow.	Woods and Plantations.	Bog, Waste, Water, &c.	Total.
1879.	529,900	5,121,833	10,311,169	12,939	336,846	4,544,975	20,328,753	25·2	50·9	0·1	1·7	22·6	
1880.	529,913	5,091,694	10,356,106	15,495	339,628	4,650,237	20,492,156	24·8	50·4	0·1	1·7	23·0	
1881.	529,743	5,186,575	10,473,424	21,294	335,780	4,709,947	20,733,019	24·6	49·6	0·1	1·6	25·1	
1882.	532,813	5,351,520	10,496,839	21,345	338,099	4,787,528	20,995,331	25·0	49·7	0·1	1·6	25·0	
1883.	518,684	4,926,701	10,482,447	24,234	351,515	4,842,526	20,637,423	23·9	50·5	0·1	1·7	25·8	
1884.	515,440	4,872,744	10,546,876	25,541	332,095	4,795,486	20,573,741	23·8	50·5	0·1	1·7	25·9	
1885.	516,599	4,937,157	10,594,189	18,132	332,147	4,771,947	20,653,672	24·4	50·4	0·1	1·8	25·3	
1886.	516,499	5,004,115	10,662,760	17,025	322,608	4,755,241	20,782,750	24·5	50·9	0·1	1·8	23·7	
1887.	515,313	5,065,657	10,748,507	12,741	329,583	4,871,480	20,977,468	24·9	49·6	0·1	1·8	24·6	
1888.	514,691	5,140,683	9,905,097	15,613	331,587	4,935,773	20,129,753	25·3	48·7	0·1	1·9	24·9	

Tables showing the extent of land and the proportionate area under Crops, Grass, Fallow, Woods and Plantations, Bog and Marsh, Barren Mountain Land, and Water, Roads, Fences, &c., in 1888, by counties and provinces, will be found at page 18. From these it appears that there are five counties with upwards of 100,000 acres under "Bog and Marsh," viz.:—Mayo, with 341,805 acres, or 25·9 per cent. of its entire area; Galway, 239,428 acres, or 15·9 per cent.; Donegal, 171,198 acres, or 14·4 per cent.; King's, 113,316 acres, or 29·0 per cent., and Kerry, 131,037 acres, or 11·3 per cent. The following counties contain the smallest areas under "Bog and Marsh," viz.:—Dublin, 958 acres, or 0·4 per cent. of its entire area; Louth, 2,800 acres, or 1·4 per cent.; Down, 6,489 acres, or 1·2 per cent.; and Carlow, 6,698 acres, or 3·0 per cent.; 733,535 acres in the province of Connaught, being 17·3 per cent. of its entire area, are returned as under "Bog and Marsh," including 82,464 acres, or 14·1 per cent. of the County Roscommon, in addition to the large extent in Mayo and Galway as before mentioned.

Bog and  
Marsh, 1888.

\* See note (†) page 3.

† See note (†) page 3.



Barren  
Mountain  
Land, 1888.

"Barren Mountain Land" covers an area of 100,000 acres and upwards in the following seven counties, viz.:—Donegal, 340,679 acres, or 28·6 per cent. of its entire area; Kerry, 290,043 acres, or 25·0 per cent.; Galway, 230,163 acres, or 15·3 per cent.; Cork, 250,500 acres, or 18·6 per cent.; Mayo, 235,999 acres, or 17·9 per cent.; Tyrone, 111,587 acres, or 14·3 per cent.; and Wicklow, 119,740 acres, or 23·9 per cent.

14·3 per cent. of Sligo, or 64,315 acres, 6·7 per cent., or 70,065 acres of Tipperary, and 17·0 per cent., or 77,546 acres of Waterford are under "Barren Mountain Land." The counties containing the smallest areas under "Barren Mountain Land" are Meath with 607 acres, or 0·1 per cent. of its entire area; Longford, 906 acres, or 0·4 per cent.; Westmeath, 290 acres, or 0·1 per cent.; Kildare, 1,054 acres, or 0·3 per cent.; and Monaghan, 5,105 acres, or 1·6 per cent. Only 220,095 acres, or 4·6 per cent. of Leinster are returned as being under "Barren Mountain Land," while 799,954 acres, or 13·5 per cent. of Munster; 678,169 acres, or 12·7 per cent. of Ulster; and 560,753 acres or 13·7 per cent. of Connaught are so returned.\*

Water,  
Roads,  
Fences, &c.,  
1888.

Very little variation is exhibited in the proportionate area under "Water, Roads, Fences, &c." in the several counties and provinces. In the counties the highest percentage is 7·5 in Dublin, and the lowest 3·1 in the county of Wicklow. 884,852 acres (including 133,085 acres under water), or 4·4 per cent. of the entire area of the country, were returned in 1888 as "Water, Roads, Fences, &c." This, however, does not include the acreage under the larger rivers, lakes and tideways. See note (†), page 3.

A table showing the division of land by Poor Law Unions is given at pages 19 and 20.

Number and  
size of  
holdings,  
1887 and  
1888.

According to the returns for 1888, the number of separate holdings was 562,642, being 833 less than in the previous year. The holdings which increased in number were—those "above 15 and not exceeding 30 acres" by 432; and those "above 200 and not exceeding 500 acres" by 55. The holdings which decreased in number were those "not exceeding 1 acre" by 171 acres; those "above 1 and not exceeding 5 acres" by 558; those "above 5 and not exceeding 15 acres" by 416; those "above 30 and not exceeding 50 acres" by 82; those "above 50 and not exceeding 100 acres" by 9; those "above 100 and not exceeding 200 acres" by 75; and those "above 500 acres" by 9.

Size of Holdings.	Number in 1887.	Number in 1888.	Increase or Decrease in 1888.	
			Increase.	Decrease.
Not exceeding 1 Acre, . . . . .	68,129	47,961	—	171
Above 1 and not exceeding 5 Acres, . . . . .	60,824	60,266	—	558
" 5 " " 15 " " . . . . .	156,062	156,146	—	414
" 15 " " 30 " " . . . . .	134,879	135,311	432	—
" 30 " " 50 " " . . . . .	73,845	73,763	—	82
" 50 " " 100 " " . . . . .	56,155	56,176	—	9
" 100 " " 200 " " . . . . .	22,871	23,796	—	75
" 200 " " 500 " " . . . . .	8,317	8,372	55	—
Above 500 Acres, . . . . .	1,670	1,661	—	9
Total, . . . . .	558,475	562,642	—	833

\* With reference to the question whether waste land is increasing or decreasing in Ireland, the following from a Paper read by Dr. Grimshaw before the Statistical and Social Inquiry Society of Ireland on the 22d of April, 1884, may be of interest:—

"The following Table shows that so far from the waste land of Ireland being on the increase, an immense amount of waste land has been reclaimed during the past forty years.

"DIVISION OF LAND IN 1841, '51, '61, '71, AND '81.

Division of Land.	1841.	1851.	1861.	1871.	1881.
	Statute Acres.	Statute Acres.	Statute Acres.	Statute Acres.	Statute Acres.
Under Crops (including Meadows), . . . . .	14,464,960	14,614,961	14,614,961	14,614,961	14,614,961
— Grass, . . . . .	—	—	—	—	—
Woods and Plantations, . . . . .	374,682	374,682	374,682	374,682	374,682
Barren Mountain Land, . . . . .	—	—	—	—	—
Top and Slacks, . . . . .	4,085,871	4,085,871	4,085,871	4,085,871	4,085,871
Waste Land, &c., . . . . .	—	—	—	—	—
Total, . . . . .	—	—	—	—	—

NOTE.—The information for 1861 and 1881, respectively, has been obtained from the Census Reports for those years, and that for the subsequent periods from the Agricultural Statistics.

A more extended Extract from the Paper above referred to was printed in the Agricultural Statistics Reports for 1884 and 1885.



A table showing the number of holdings, by classes, for each Poor Law Union, in 1888, will be found on pp. 19 and 20.

The number of separate holdings in each county and province, in 1887 and 1888, is given by classes in Table III. at page 8.

As in many instances landholders occupy more than one farm, and as, in other cases, farms extend into two or more townlands—the portion in each townland being enumerated and classified as a separate holding—it has been considered desirable, with the view of ascertaining the number of Occupiers, and of classifying them according to the total extent of land held by each, to obtain a Return of the number of persons having more than one farm or holding. Each Enumerator is, therefore, required to furnish the name of every landholder residing in his district who has two or more farms, or whose farm extends into two or more townlands, together with the area of each portion, and the locality in which it is situated. The number of actual occupiers in 1888 thus arrived at is given in Table IV., page 9, by counties and provinces. On comparing the results in this Table with the figures given in Table III., it appears that in 1888 there were 562,642 holdings in the hands of 521,465 occupiers.

Number of  
separate  
Holdings  
and of  
Occupiers,  
1887 and  
1888.

The number of separate holdings and the number of occupiers in each Province in 1887 and 1888 were:—

Provinces.	Number of Separate Holdings.		Number of Occupiers.	
	1887.	1888.	1887.	1888.
Leinster, . . .	191,362	120,556	108,652	108,384
Munster, . . .	123,177	122,357	111,213	111,196
Ulster, . . .	198,238	198,779	187,804	187,460
Connaught, . .	120,797	121,040	114,302	114,423
TOTAL, . . .	533,475	562,642	522,181	521,465

The number of occupiers of land in 1888 was 521,465, being 716 less than in the previous year.

Excluding those holding land "not exceeding one acre," who are to a great extent merely occupiers of small gardens, they numbered 474,115 in 1888, or 578 less than in 1887. There was a decrease in Leinster of 283—from 98,064 in 1887 to 97,781 in 1888; in Munster of 97—from 99,539 in 1887 to 99,442 in 1888; in Ulster of 179—from 173,018 in 1887 to 172,839 in 1888; and in Connaught of 19—from 109,072 in 1887 to 109,053 in 1888. The decrease in occupiers holding land above 1 and not exceeding 50 acres was 801, and the number holding land exceeding that acreage increased by 233.



TABLE III.—The number of Holdings, by classes, for each County and Province, in 1887 and 1888, and the increase or decrease in the latter year :—

COUNTIES.		FORMS AND CLASSIFICATION OF HOLDINGS.										Total.
		Not exceeding 1 Acre.	Above 1 and not exceeding 5 Acres.	Above 5 and not exceeding 15 Acres.	Above 15 and not exceeding 30 Acres.	Above 30 and not exceeding 50 Acres.	Above 50 and not exceeding 100 Acres.	Above 100 and not exceeding 200 Acres.	Above 200 and not exceeding 500 Acres.	Above 500 Acres.		
ANTRIM.	1887	1,556	2,007	5,428	4,102	2,478	2,399	866	145	21	21,974	
	1888	1,572	2,060	5,428	4,119	2,537	2,511	889	162	21	22,164	
ARMAGH.	1887	1,643	2,568	8,612	4,590	1,967	608	67	22	1	20,319	
	1888	1,755	2,458	8,326	4,373	1,769	524	67	22	2	20,116	
CARLOW.	1887	807	208	913	950	331	879	550	105	8	8,560	
	1888	280	283	867	994	621	167	555	167	7	4,000	
CASHER.	1887	1,006	1,307	7,805	8,345	2,537	615	209	55	4	22,006	
	1888	536	1,333	7,094	8,680	1,448	961	201	93	5	20,077	
CLARE.	1887	1,107	1,048	7,963	4,830	1,574	2,391	835	263	53	17,032	
	1888	1,101	1,071	2,474	4,720	8,919	2,660	881	356	43	17,423	
CORK.	1887	8,430	2,960	4,083	6,565	6,038	7,754	5,377	806	88	35,422	
	1888	2,435	3,230	4,439	6,482	6,737	7,710	8,719	805	60	30,401	
DOWN.	1887	2,968	2,719	10,277	6,513	4,140	5,115	662	827	111	31,011	
	1888	1,300	2,833	10,294	6,021	4,142	5,091	944	537	185	23,276	
DUBLIN.	1887	4,218	3,685	9,581	6,218	5,142	7,714	825	70	18	29,551	
	1888	4,032	5,730	9,584	6,744	8,171	12,111	325	81	10	28,731	
DUSS.	1887	2,128	1,734	1,644	948	694	614	361	185	34	12,321	
	1888	2,128	1,734	1,644	948	694	614	361	185	34	12,321	
FERRISBURGH.	1887	273	387	3,047	4,205	2,209	1,269	407	45	72	13,041	
	1888	718	1,614	3,323	4,808	2,705	1,243	340	99	23	13,611	
GALWAY.	1887	1,744	4,489	12,381	8,387	3,348	2,318	1,517	799	218	30,821	
	1888	1,731	4,395	12,381	8,387	3,348	2,318	1,517	799	218	30,821	
KERRY.	1887	1,106	1,519	2,099	2,710	2,646	3,316	1,086	539	116	15,114	
	1888	1,106	1,519	2,099	2,710	2,646	3,316	1,086	539	116	15,114	
KILKENNY.	1887	1,648	1,745	9,596	5,245	2,232	2,655	781	266	18	14,709	
	1888	1,643	1,745	9,596	5,245	2,232	2,655	781	266	18	14,709	
KILMURRAY.	1887	1,641	1,704	2,865	2,075	1,344	1,422	845	266	31	10,222	
	1888	1,369	1,647	9,243	5,064	1,820	1,206	845	270	45	14,041	
LEITH.	1887	412	620	3,134	5,259	1,771	670	173	52	19	14,591	
	1888	463	797	3,185	5,259	1,771	670	173	52	16	14,591	
LIMERICK.	1887	1,762	1,620	2,381	5,084	2,084	2,791	1,058	266	31	13,088	
	1888	1,368	1,630	2,386	3,021	2,022	2,707	1,062	266	29	13,088	
LONDONDERRY.	1887	1,368	1,640	2,386	3,021	2,022	2,707	1,062	266	29	13,088	
	1888	1,603	1,620	4,523	4,525	2,589	1,252	491	134	20	17,048	
LONDON.	1887	648	723	2,648	2,648	1,120	878	186	66	8	13,088	
	1888	648	723	2,648	2,648	1,120	878	186	66	8	13,088	
LEITH & DUBLIN. CH. OF DUBLIN.	1887	1,173	1,336	2,325	1,400	628	467	226	114	14	7,703	
	1888	1,362	1,362	2,348	1,362	628	467	245	112	14	7,703	
MAYO.	1887	1,535	2,145	14,947	9,008	2,668	1,591	894	373	296	30,770	
	1888	1,535	2,145	14,947	9,008	2,668	1,591	894	373	296	30,770	
MEATH.	1887	1,604	1,729	2,513	1,072	1,141	1,220	828	478	31	11,023	
	1888	1,613	1,689	2,326	1,765	1,362	1,224	671	689	87	11,418	
MONTGOMERY.	1887	893	2,011	7,080	8,049	1,646	960	190	21	4	17,119	
	1888	739	1,962	7,021	5,165	1,484	510	100	19	4	17,338	
QUEEN'S.	1887	1,468	1,671	2,481	2,099	1,253	1,172	478	200	38	10,571	
	1888	1,527	1,679	9,421	5,077	1,817	1,172	259	216	33	13,041	
ROSS.	1887	663	1,165	8,763	5,045	1,646	920	586	266	23	20,239	
	1888	897	2,111	8,364	5,648	1,632	886	542	290	24	20,236	
SLIGO.	1887	1,201	1,416	8,822	4,485	1,648	773	391	128	33	13,251	
	1888	890	1,374	5,020	4,210	1,207	800	307	115	14	13,251	
TIPPERARY.	1887	2,810	2,844	4,500	4,856	2,968	3,216	1,446	263	67	23,327	
	1888	2,806	2,844	4,464	4,853	3,968	3,317	1,431	645	80	24,007	
WATERFORD.	1887	1,739	2,763	4,464	4,853	3,968	3,317	1,431	645	80	24,007	
	1888	1,714	2,482	3,158	3,800	3,361	2,889	326	143	41	22,411	
WEXFORD.	1887	2,105	1,117	1,396	1,669	1,516	1,514	315	292	37	14,239	
	1888	2,302	1,966	1,691	1,568	1,633	1,646	812	293	53	14,719	
WILTSHIRE.	1887	1,201	1,382	2,159	3,223	1,349	1,035	535	225	45	13,041	
	1888	1,328	1,641	2,159	3,223	1,349	1,035	535	225	45	13,041	
WINDSOR.	1887	1,404	2,099	2,071	2,045	2,715	2,425	870	177	35	16,099	
	1888	1,402	2,095	2,063	2,031	2,683	2,384	867	167	35	16,095	
WINDSOR.	1887	564	841	5,713	1,544	1,194	1,392	712	273	64	10,013	
	1888	565	835	5,374	1,325	1,171	1,417	712	273	64	10,013	

## SUMMARY OF IRELAND.

PROVINCES.											
LEINSTER.	1887	16,002	17,764	35,071	22,412	15,515	14,048	6,870	2,761	408	121,361
	1888	12,100	17,143	24,182	22,412	15,515	14,048	6,870	2,761	408	121,361
MUNSTER.	1887	11,340	16,347	18,180	9,105	22,311	20,148	3,280	2,767	373	101,117
	1888	11,369	16,369	18,180	9,105	22,311	20,148	3,280	2,767	373	101,117
ULSTER.	1887	14,016	20,322	43,415	26,014	26,877	14,899	2,862	1,004	271	121,559
	1888	14,714	20,009	43,415	26,014	26,877	14,899	2,862	1,004	271	121,559
CONNAUGHT.	1887	8,254	12,146	46,777	35,468	11,761	8,190	2,173	1,755	514	121,771
	1888	5,252	12,128	46,523	35,468	11,761	8,190	2,173	1,755	514	121,771
TOTAL OF IRELAND.	1887	45,122	66,520	158,423	104,827	73,462	55,485	22,871	8,312	1,570	405,479
	1888	47,250	66,520	158,423	104,827	73,462	55,485	22,871	8,312	1,570	405,479
INCREASE OR DECREASE											
IN 1888.		2,128	0	0	0	0	0	0	0	0	0
DECREASE.		171	538	416	422	63	9	23	55	6	238



TABLE IV.—Return of the number of Occupiers resident in each County and Province in 1888, classified according to the total extent of land held, without reference to the Townland, Poor Law Union, County, or Province in which the portions of land are situated:—

Counties.	SPACES OF LAND HELD IN 1881.									Totals.
	Not exceeding 1 Acre.	Above 1 and not exceeding 5 Acres.	Above 5 and not exceeding 15 Acres.	Above 15 and not exceeding 30 Acres.	Above 30 and not exceeding 50 Acres.	Above 50 and not exceeding 100 Acres.	Above 100 and not exceeding 200 Acres.	Above 200 and not exceeding 500 Acres.	Above 500 Acres.	
Armagh.	1,463	1,151	4,869	5,477	3,754	2,208	711	184	84	99,232
Armagh.	1,727	2,338	8,030	4,002	1,880	267	123	37	5	13,241
Carlow.	794	556	740	648	722	763	519	130	12	4,372
Cavan.	992	1,167	6,261	8,485	3,483	881	322	42	15	35,546
Clare.	1,008	1,116	2,550	4,249	3,767	2,380	870	875	69	28,288
Cork.	1,322	2,062	4,447	5,785	5,540	6,320	3,784	1,635	129	30,538
Down.	1,218	2,459	6,619	6,684	5,532	3,817	888	372	112	29,765
Dublin.	4,619	8,534	6,754	6,169	2,994	1,779	425	161	20	29,344
Donegal.	2,115	1,382	1,451	831	432	473	278	159	51	7,731
Fermanagh.	730	502	2,323	3,845	2,140	1,199	386	111	21	12,541
Galway.	1,026	4,306	11,499	9,327	3,255	2,112	1,618	879	303	32,332
Kerry.	1,022	1,622	2,680	3,640	3,775	4,775	1,805	546	252	16,207
Kildare.	1,169	1,206	1,422	1,461	763	814	612	364	68	7,779
Sligo.	1,616	1,507	1,314	1,205	1,263	1,314	796	271	54	11,029
King's.	1,333	1,507	1,179	1,232	1,232	1,614	206	220	23	9,730
Leinster.	300	908	4,786	4,683	1,739	765	398	41	12	25,168
Lancashire.	1,372	1,400	2,851	2,445	2,453	2,453	1,654	549	86	14,325
Longford.	1,286	1,603	3,961	4,170	2,783	1,253	457	189	33	26,184
London and Drogheda, Co. of	680	717	3,322	2,485	1,640	549	374	74	17	7,735
Town.	1,254	1,398	2,342	1,522	462	496	201	116	33	7,144
Mayo.	1,317	2,314	14,499	8,149	2,671	1,432	766	403	914	31,211
Meath.	1,932	1,805	2,282	1,214	371	1,622	717	421	146	10,121
Monaghan.	727	1,265	2,667	1,581	1,477	852	236	84	1	16,568
Queen's.	1,324	1,965	2,668	1,734	1,469	1,255	548	370	57	12,598
Roosnare.	625	1,313	7,380	5,555	1,476	750	411	223	60	14,382
Sligo.	848	1,391	5,641	4,316	1,471	754	302	139	41	14,564
Tyrone.	2,018	2,434	5,589	4,604	3,885	3,147	1,354	354	130	26,011
Tyrron.	1,706	2,249	7,541	7,516	3,791	2,280	597	177	44	20,880
Waterford.	2,105	1,830	1,138	1,694	1,669	1,274	748	588	66	9,666
Westmeath.	1,294	1,335	2,113	1,264	1,448	964	470	262	37	9,779
Wexford.	1,394	1,931	2,569	2,437	2,342	2,183	960	270	26	14,082
Wicklow.	928	789	1,084	1,149	685	1,227	685	260	113	7,125

## SUMMARY OF IRELAND.

Provinces.	1880	1881	1882	1883	1884	1885	1886	1887	1888
Leinster	13,662	13,663	32,667	18,954	18,321	12,261	4,363	2,671	706
Munster	11,750	13,637	30,080	21,172	17,371	20,786	1,984	3,235	607
Queen's	34,421	19,619	60,063	30,327	25,618	14,667	3,252	1,996	376
Connaught	8,519	11,778	41,156	32,001	16,761	8,779	2,680	1,684	453
Total of Ireland.	42,400	58,122	142,615	123,234	77,223	52,186	22,550	8,577	2,235

The following statement shows the number of occupiers of land in each year from 1882 to 1888, by Provinces:—

Number of Occupiers of Land, 1882 to 1888.

Provinces.	Number of Occupiers in the Years						
	1882	1883	1884	1885	1886	1887	1888
Leinster	109,840	108,897	108,650	107,976	108,637	108,862	108,384
Munster	111,130	110,011	109,342	110,183	110,818	111,313	111,148
Ulster	189,060	187,075	187,956	188,372	188,517	187,804	187,860
Connaught	117,636	116,069	114,886	116,022	114,805	114,302	114,423
Ireland	327,676	322,052	320,734	322,536	322,277	323,161	321,465

The number of holdings "above 1 and not exceeding 5 acres" diminished greatly between 1841 and 1888. In Leinster the decrease was 65·2 per cent.; in Munster 81·7; in Ulster 80·4; in Connaught 87·9; and in all Ireland 80·6 per cent.

In the same period holdings "above 5 and not exceeding 15 acres" also diminished in number; the decrease in all Ireland was 38·2 per cent.; it was—in Leinster 44·4 per cent.; in Munster 69·7; and in Ulster 34·4; while in Connaught these holdings increased 2·5 per cent.

Holdings "above 15 and not exceeding 30 acres" increased 7·9 per cent. in Leinster; 117·6 per cent. in Ulster; and 482·6 per cent. in Connaught. They decreased 12·4 per cent. in Munster; while in all Ireland they increased 70·5 per cent.



Holdings "above 30 acres" increased 119·7 per cent. in Leinster; 241·2 in Munster; 353·3 in Ulster; 425·6 in Connaught; and 235·2 per cent. in all Ireland.

The total number of holdings "above 1 acre" decreased between 1841 and 1888 by 22·3 per cent. in Leinster; 32·6 per cent. in Munster; 22·2 in Ulster; and 25·9 in Connaught.

The total number of holdings in Ireland "above 1 acre" was 691,202 in 1841; 570,333 in 1851; 568,484 in 1861; 544,142 in 1871; 526,743 in 1881; and 514,691 in 1888, showing a decrease of 176,511 or 25·5 per cent. in the period between 1841 and 1888.

Number of Holdings in 1841, 1851, 1861, 1871, 1881, and 1888.

TABLE V.—The number of Holdings above 1 acre in each Province in 1841, 1851, 1861, 1871, 1881, and 1888, according to the classification used by the Census Commissioners of 1841 (in which "above 30 acres" was the maximum); the increase or decrease in the numbers in each class, and the difference per cent., between 1841 and 1888:—

Size of Holdings.	Leinster.	Munster.	Ulster.	Connaught.	Total.
	Number.	Number.	Number.	Number.	Number.
Above 1 and not exceeding 5 Acres. . . . .	1841, 50,110 1851, 25,711 1861, 23,848 1871, 21,429 1881, 18,804 1888, 17,443	57,837 14,200 13,738 12,522 11,096 10,330	102,215 29,709 28,458 24,322 21,571 20,576	100,254 18,463 19,427 16,856 15,200 12,138	310,436 88,083 85,469 74,809 67,671 60,966
Decrease in number between 1841 and 1888. . . . .	32,667	47,507	81,639	88,116	250,170
Rate per cent., . . . . .	65·2	81·7	80·4	87·9	80·6
Above 5 and not exceeding 15 Acres. . . . .	1841, 46,039 1851, 35,038 1861, 29,515 1871, 27,275 1881, 25,048 1888, 25,583	61,735 24,565 21,539 20,409 16,747 13,710	99,505 25,176 32,053 73,647 68,365 80,324	45,408 40,255 50,404 50,092 49,888 46,521	252,779 191,554 163,931 171,383 184,045 156,146
Increase or Decrease in number between 1841 and 1888. . . . .	20,447	45,034	34,281	1,119	96,885
Rate per cent., . . . . .	44·4	69·7	34·4	2·5	38·2
Above 15 and not exceeding 30 Acres. . . . .	1841, 20,688 1851, 26,006 1861, 24,228 1871, 25,443 1881, 22,625 1888, 22,313	27,611 28,835 26,805 25,624 25,030 24,105	25,319 37,561 37,890 56,878 56,327 54,871	5,824 28,799 32,500 32,702 32,915 35,932	79,542 141,211 141,251 158,647 136,765 135,811
Increase or Decrease in number between 1841 and 1888. . . . .	1,625	5,416	29,552	28,108	55,693
Rate per cent., . . . . .	7·9	12·4	117·6	482·6	70·5
Above 30 Acres. . . . .	1841, 17,243 1851, 23,006 1861, 20,284 1871, 39,531 1881, 39,475 1888, 39,419	16,645 53,074 55,833 56,438 56,141 56,835	2,555 37,813 39,464 41,071 42,510 43,767	4,369 29,107 25,152 25,273 21,708 22,927	48,635 149,090 157,933 160,903 160,834 163,508
Increase in number between 1841 and 1888. . . . .	21,476	40,190	41,112	18,565	114,343
Rate per cent., . . . . .	119·7	241·2	333·3	425·6	239·9
TOTAL ABOVE 1 ACRE. . . . .	1841, 134,780 1851, 122,871 1861, 116,975 1871, 111,678 1881, 106,890 1888, 104,777	163,893 120,494 118,333 114,783 119,014 110,358	236,694 210,349 207,555 198,888 168,070 184,088	155,842 118,624 126,543 121,883 119,709 115,518	691,202 570,528 568,484 544,142 526,743 514,691
Decrease in number between 1841 and 1888. . . . .	30,003	53,526	52,606	40,324	176,511
Rate per cent., . . . . .	22·3	32·6	22·2	25·9	25·5



## PART II.—THE PRODUCE OF THE CROPS.

The Tables relating to the produce of the crops have been carefully compiled from information obtained by members of the Royal Irish Constabulary and of the Metropolitan Police from practical farmers and other persons qualified to form an opinion as to the yield in that *Poor Law Electoral Division*, for which they were requested to afford the information. The names and residences of the parties so co-operating and assisting are stated by the Enumerators on the Returns.

Note of collecting the Returns of Produce.

Prior to 1856 the rates of produce were procured for Constabulary districts instead of Poor Law Electoral Divisions as at present. The latter arrangement was adopted in 1856, with a view to insure greater accuracy in the Returns; the Poor Law Electoral Division being of much smaller area, an increased number of average rates was obtained, and thus additional means were afforded for arriving at a more accurate return of the actual produce of the several crops. On pp. 58 to 67 will be found the observations of the District Inspectors of the Royal Irish Constabulary and of the Sergeants of the Metropolitan Police, who acted as Superintendents of the Agricultural Statistics, in reply to a circular requesting their opinion on the probable cause to which the good or bad yield of the various crops, in each of their districts, may be attributed.

Comparing the total produce of the crops in 1888 with the total in 1887—the returns for 1888 are, with the exception of potatoes, of a satisfactory character. In Cereal Crops, there is a large increase in oats of 2,481,219 cwts.; there is an increase in wheat of 348,907 cwts.; in barley of 630,402 cwts.; in bere of 1,825 cwts.; in rye of 70,709 cwts.; and in pease of 350 cwts.; while there is a decrease in beans of 7,781 cwts.

Total produce in 1887 and 1888.

In Green Crops, potatoes show the large decrease of 1,046,195 tons in 1888 compared with 1887, while there is an increase of 607,500 tons in turnips, of 135,218 tons in mangel wurzel and beet root, and of 60,718 tons in cabbage.

Flax shows the large increase of 878,759 stones of 14 lbs.; hay on clover, sainfoin, and grasses under rotation, an increase of 250,175 tons; and hay on permanent pasture or grass not broken up in rotation, the large increase of 1,331,586 tons.

The yield per acre of cereal crops in 1888 compared with that of 1887 shows an increase in oats of 2·3 cwts.; barley of 3·0 cwts.; bere of 0·8 cwt.; rye of 2·6 cwts.; and beans of 1·3 cwt., while there is a decrease in wheat of 1·4 cwt., and in pease of 0·6 cwt. In other crops—turnips show an increase of 2·2 tons; mangel wurzel of 2·0 tons; and cabbage of 1·7 tons, while potatoes exhibit a decrease of 1·4 tons. Hay on clover, sainfoin, and grasses under rotation shows an increase of 0·4 ton, and hay on permanent pasture or grass not broken up in rotation, increased by 0·8 ton. Flax shows the very great increase of 10·4 stones.

Estimated average produce per acre in 1887 and 1888.

The total produce of the principal crops in 1887 and 1888, and the increase or decrease in the latter year, are given in Table VI; the average produce per statute acre in Table VII.; and in Table VIII. are given the total extent under each of the principal crops, the estimated average yield per statute acre, and the total produce, for each year from 1879 to 1888, inclusive.

TABLE VI.—The total produce of the principal Crops in 1887 and 1888, and the increase or decrease in the latter year:—

Produce of the Crops, 1887-88.

Crops.	Produce.		Increase in 1888.	Decrease in 1888.
	1887.	1888.		
Wheat, Cwts. of 112 lbs.,	1,018,032	1,367,939	348,907	—
Oats, " "	15,142,419	17,630,638	2,481,219	—
Barley, " "	2,071,457	2,701,859	630,402	—
Bere, " "	3,218	5,043	1,825	—
Rye, " "	118,343	187,052	70,709	—
Beans, " "	71,790	63,909	—	7,781
Pease, " "	8,319	8,669	350	—
Potatoes, in Tons, .	3,569,402	2,523,207	—	1,046,195
Turnips, " "	2,719,151	3,326,651	607,500	—
Mangel Wurzel and Beet Root, " "	454,537	590,053	135,218	—
Cabbage, " "	325,130	385,848	60,718	—
Flax, in Stones of 14 lbs.,	2,418,341	3,298,700	878,759	—
Hay, in Tons, { Clover, Sainfoin, and Grasses under Rotation, .	1,136,583	1,386,758	250,175	—
Hay, in Tons, { Permanent Pasture or Grass not broken up in Rotation .	2,462,608	3,794,188	1,331,586	—



Average  
produce of  
Crops in  
1887 and  
1888.

TABLE VII.—The estimated average produce per statute acre of the principal crops in 1887 and 1888, and the increase or decrease in 1888 compared with 1887:—

Crops.	Prices per Statute Acre.		Increase in 1888.	Decrease in 1888.
	1887.	1888.		
Wheat, in Cwts. of 112 lbs.,	18-2	13-8	—	1-4
Oats, " " "	11-6	13-8	2-2	—
Barley, " " "	12-8	18-8	3-0	—
Bere, " " "	12-6	13-8	0-8	—
Eye, " " "	10-8	12-4	2-6	—
Beans, " " "	11-3	12-6	1-3	—
Fense, " " "	12-4	11-8	—	0-6
Potatoes, in Tons,	4-5	3-1	—	1-4
Turnips, " " "	9-1	11-3	2-2	—
Mangel Wurzel } and Beet Root, }	10-9	12-6	2-0	—
Cabbage, " " "	7-4	9-1	1-7	—
Flax, in Stones of 14 lbs.,	18-6	29-0	10-4	—
Hay, in Tons, { Clover, sainfoin, and Grass under Ro- tation, " " " Permanent Pasture or Grass not broken up in Rotation, " " "	1-8 1-6	2-2 2-4	0-4 0-8	— —

Extent  
under Crops  
production, 1979-84

The further statement contained in Table VIII. gives a general view of the state of agriculture during the year 1868 as compared with preceding years.

Tables showing the total produce of the Crops in 1888, by counties and provinces, will be found at page 24, and by poor law unions at page 30. The average rates by counties and provinces for each year from 1879 to 1886, are given at pages 39 to 43.

TABLE VIII.—The extent under each of the principal Crops—the average Yield per Statute Acre, and the total Produce for all Ireland, in each year from 1879 to 1888, inclusive.

Years.	EXTENT UNDER CROPS IN STATUTE MEASURE.											
	Wheat.	Oats.	Rape.	Bar.	Rye.	Potatoes.	Turneps.	Mangel-Wurzel and Root Crops.	Cabbages.	Flax.	Exp.	
	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	
1873.	157,512	1,283,081	584,599	855	5,699	823,571	514,757	21,158	35,425	225,321	1,937,257	
1874.	157,500	1,281,023	516,816	861	7,167	833,024	502,686	45,413	36,462	157,540	1,937,028	
1875.	158,794	1,293,382	568,266	874	7,586	843,516	506,019	54,555	36,478	147,545	2,001,659	
1880.	152,624	1,287,307	567,554	865	7,775	837,025	506,070	56,552	37,125	1,382,512	1,982,512	
1885.	84,769	1,281,904	565,290	810	7,339	836,467	506,729	57,545	38,818	85,545	1,981,704	
1894.	87,590	1,248,444	167,082	540	7,149	796,893	586,681	54,541	38,473	39,725	1,980,657	
1895.	71,017	1,253,816	174,158	566	6,819	797,393	585,584	57,179	45,127	285,147	2,004,798	
1896.	652,363	1,252,363	167,469	960	16,874	795,867	589,928	57,418	46,112	127,650	2,004,798	
1897.	47,411	1,241,610	167,169	890	16,774	796,539	589,735	47,738	45,675	180,384	2,143,011	
1898.	46,045	1,280,828	170,828	580	18,948	804,566	584,587	45,749	45,585	113,613	2,261,688	
ESTIMATED AVERAGE PRODUCE PER STATUTE ACRE.												
	Wheat, 111 lbs.	Oats, 111 lbs.	Corn, 111 lbs.	Bar., 22 lbs.	Rye, 111 lbs.	Pot., 111 lbs.	Turn., 111 lbs.	Mang., 111 lbs.	Cabb., 111 lbs.	Flax, 111 lbs.	Exp., 111 lbs.	
1873.	13-4	11-7	12-6	19-2	3-7	1-5	8-5	8-0	8-4	28-8	1-0	
1880.	13-0	14-0	12-6	14-7	10-5	4-0	14-5	14-0	8-8	30-0	2-0	
1881.	14-5	14-1	13-8	14-5	10-5	4-0	15-9	13-4	8-8	30-0	2-0	
1885.	13-5	12-9	14-7	16-0	10-0	2-4	11-0	11-9	8-5	30-1	2-0	
1895.	12-7	12-9	12-4	14-4	13-4	4-2	14-0	15-9	8-5	30-0	2-0	
1894.	14-0	12-4	16-0	19-7	12-5	5-0	11-0	12-7	8-5	30-1	1-0	
1895.	13-4	12-0	16-1	13-4	12-7	4-0	11-9	13-4	8-4	30-4	2-0	
1896.	14-5	13-9	13-0	13-0	13-0	3-0	12-5	13-4	8-7	30-2	2-0	
1897.	12-7	11-5	13-0	12-5	13-0	4-5	9-1	10-9	7-4	18-0	1-0	
1898.	12-5	12-5	13-5	13-5	13-4	5-0	11-0	12-9	8-1	28-9	2-0	
TOTAL PRODUCE.												
	Wheat, 111 lbs.	Oats, 111 lbs.	Corn, 111 lbs.	Bar., 111 lbs.	Rye, 111 lbs.	Pot., 111 lbs.	Turn., 111 lbs.	Mang., 111 lbs.	Cabb., 111 lbs.	Flax, 111 lbs.	Exp., 111 lbs.	
1873.	1,738,521	15,532,839	8,959,810	5,764	73,268	1,211,575	2,527,804	439,556	214,543	18,164	8,288,880	
1874.	1,927,717	16,205,479	5,235,516	5,225	73,836	1,883,569	4,705,655	604,452	316,688	38,353	7,784,265	
1875.	2,037,121	17,758,474	5,335,716	6,839	78,548	2,435,585	5,329,944	621,773	371,528	22,373	8,899,265	
1880.	1,775,465	16,388,355	7,743,521	5,022	84,403	2,259,584	5,029,517	645,076	438,078	20,222	4,115,910	
1885.	1,264,718	16,681,356	2,811,532	4,248	83,850	4,641,565	4,203,217	436,758	367,377	13,292	8,867,839	
1894.	890,824	16,006,440	2,875,780	4,738	79,876	5,040,382	5,867,924	450,477	261,058	13,679	8,925,725	
1895.	1,007,590	16,123,677	2,955,842	4,203	593,622	5,175,738	5,552,793	426,730	287,766	20,570	4,496,025	
1896.	1,007,590	16,006,440	2,971,380	4,104	229,292	5,697,724	5,974,478	353,806	251,471	25,317	4,698,782	
1897.	1,000,000	15,445,625	2,071,437	5,215	216,245	5,893,402	7,713,851	454,337	325,130	15,746	5,000,184	
1898.	1,367,898	17,698,558	3,761,493	6,048	787,627	5,923,707	5,336,551	590,352	592,548	39,560	5,548,240	



## PART III.—LIVE STOCK.

TABLE IX.—The Number and Ages of the Live Stock in Ireland, in 1887 and 1888, and the Increase or Decrease in each description:—

Number and Ages of Live Stock, 1887 and 1888.

Description of Stock.		Number in 1887.	Number in 1888.	Increase in 1888.	Decrease in 1888.
HORSES.	{ Two years old and upwards, . . .	422,552	430,341	—	2,181
	{ One year old and under two, . . .	69,505	74,363	4,668	—
	{ Under one year, . . .	65,246	70,463	5,206	—
Total No. of Horses, . . .		557,445	575,067	7,692	—
MULES, . . . . .		29,839	30,271	442	—
ASSES, . . . . .		199,512	203,152	3,640	—
CATTLE.	{ Two years old and upwards, . . .	2,350,058	2,308,029	—	62,429
	{ One year old and under two, . . .	865,413	876,045	8,632	—
	{ Under one year, . . .	906,083	921,821	—	14,412
Total No. of Cattle, . . .		4,107,404	4,099,195	—	88,209
SHEEP.	{ One year old and upwards, . . .	2,032,521	2,161,110	128,295	—
	{ Under one year, . . .	1,845,905	1,465,553	120,548	—
Total No. of Sheep, . . .		3,877,826	3,626,669	248,843	—
PIGS.	{ One year old and upwards, . . .	177,411	171,091	—	6,320
	{ Under one year, . . .	1,330,845	1,397,734	—	4,111
Total No. of Pigs, . . .		1,408,466	1,397,825	—	10,631
GOATS, . . . . .		271,729	295,678	23,949	—
POULTRY, . . . . .		14,486,404	14,486,400	2,757	—

At the period of the enumeration in 1888, the total number of horses in Ireland was 565,097, being an increase of 7,692 compared with 1887. There was a decrease of 2,181 in the number "two years old and upwards," and an increase of 4,668 in the "one year old, and under two," and of 5,206 in those "under one year."

Mules numbered 30,271, being 442 more than in 1887, and asses 203,152, being an increase of 3,640 as compared with the previous year.

Horses, Mules and Asses taken together numbered 785,729 in 1879, and 798,520 in 1888, being an increase of 12,791 or 1·6 per cent.

Cattle numbered 4,099,195 in 1888, showing a total decrease of 88,209 as compared with the number enumerated in 1887; in the "two years old and upwards" there was a decrease of 62,429, and of 14,412 in those "under one year"; while there was an increase of 8,632 in the "one year old and under two." Taking the ten years 1879 to 1888, cattle increased in number from 4,067,778 in 1879, and to 4,238,851 in 1885, but decreased in each of the three following years, the number for 1888 being 4,099,195 as already stated.

Sheep amounted to 3,626,669 in 1888, showing an increase of 248,843, as compared with the previous year; the "one year old and upwards" increased by 128,295, and those "under one year" by 120,548.

Comparing 1879 with 1888 there has been a decrease in the number of sheep from 4,917,903 in the former, to 3,626,669 in the latter year.

Pigs were returned as 1,397,825 in 1888, showing a decrease of 10,631, or 0·8 per cent. as compared with the previous year. The "one year old and upwards" decreased by 6,320, and those "under one year" by 4,111.

Comparing the number of pigs returned in the ten years from 1879 to 1888, the highest number, 1,430,128, was enumerated in 1882, and the lowest, 850,269, in 1880.

Goats numbered 295,678 in 1888, being 23,949 more than in 1887, and 16,835 more than in 1879.

The number of poultry in 1888 was 14,486,400, being 2,757 more than in 1887, and 708,565 more than in 1879. Of the 14,486,400 poultry in 1888, 926,054 were turkeys; 2,112,387 geese; 2,861,744 ducks; and 8,586,245 ordinary fowl.

Compared with 1887, turkeys increased by 16,308, and ordinary fowl by 105,433 while geese decreased by 28,382, and ducks by 67,602.



Number of  
Live Stock,  
1879 to  
1888.

TABLE X.—The Number of Live Stock in Ireland, in each year from 1879 to 1888, inclusive:—

Year.	Horses and Mules.	Asses.	Cattle.	Sheep.	Pigs.	Goats.	Poultry.
1879, . .	596,860	168,639	4,067,778	4,017,908	1,072,185	278,843	13,762,833
1880, . .	593,130	166,337	3,991,617	3,662,463	820,269	265,769	13,430,182
1881, . .	574,746	167,143	3,866,595	3,256,183	1,096,830	266,078	13,672,426
1882, . .	666,926	167,782	3,967,211	3,071,765	1,430,128	263,272	13,661,036
1883, . .	661,457	169,780	4,016,913	3,219,211	1,348,264	263,146	13,362,436
1884, . .	662,439	161,339	4,112,769	3,245,212	1,306,650	254,411	13,747,460
1885, . .	676,430	167,170	4,228,861	3,478,036	1,286,062	264,437	13,660,532
1886, . .	678,299	166,245	4,183,324	3,566,043	1,283,142	266,176	13,906,522
1887, . .	687,234	166,612	4,167,404	3,377,826	1,408,456	271,729	14,460,643
1888, . .	696,848	203,152	4,099,195	3,626,060	1,397,825	286,678	14,468,400

Number of  
Live Stock,  
1879 to  
1888.

TABLE XI.—The proportion per cent. of Horses, Cattle, Sheep, and Pigs in Ireland, according to Age, for the years 1879 to 1888, inclusive:—

Years.	Horses.			Cattle.			Sheep.		Pigs.		Poultry.	
	Percentage at each age.			Percentage at each age.			Percentage at each age.		Percentage at each age.		Percentage at each age.	
	Two Years old and upwards.	One Year old and under Two.	Under One Year.	Two Years old and upwards.	One Year old and under Two.	Under One Year.	One Year old and upwards.	Under One Year.	One Year old and upwards.	Under One Year.	One Year old and upwards.	Under One Year.
1879, . .	76.5	12.1	11.4	66.7	20.0	13.3	64.0	36.0	13.4	86.6	13.4	86.6
1880, . .	78.2	12.1	9.7	67.7	20.9	11.4	64.4	35.6	13.6	86.4	13.6	86.4
1881, . .	79.2	11.4	9.4	67.0	19.9	13.1	64.6	35.4	13.7	86.3	13.7	86.3
1882, . .	79.8	10.4	10.0	67.0	19.9	13.1	63.0	37.0	13.2	86.8	13.2	86.8
1883, . .	79.2	10.5	10.3	65.3	20.6	14.1	61.7	38.3	13.4	86.6	13.4	86.6
1884, . .	78.0	11.1	10.9	66.3	21.6	12.1	62.6	37.4	12.8	87.2	12.8	87.2
1885, . .	76.5	11.9	11.6	66.0	20.6	13.4	61.5	38.5	12.7	87.3	12.7	87.3
1886, . .	76.3	12.3	11.4	66.7	21.0	12.3	61.7	38.3	12.7	87.3	12.7	87.3
1887, . .	76.6	12.6	11.7	66.7	20.6	12.7	60.2	39.8	12.7	87.3	12.7	87.3
1888, . .	74.4	13.1	12.5	66.2	21.6	12.2	59.6	40.4	12.2	87.8	12.2	87.8

Tables showing the number of Live Stock in 1888, by counties and provinces will be found at page 44; by Poor Law Unions at pages 45-8; and by counties and provinces for each year from 1879 to 1888 at page 49.

## EXPORTS AND IMPORTS OF LIVE STOCK.

Exports of  
Live Stock.

With the view of giving a more accurate idea of the number of live stock produced in Ireland the following statement has been extracted from the Statistical Returns published in the Report under the "Contagious Diseases (Animals) Act, 1878."



Number of Cattle, Sheep, and Swine, exported from Ireland to Great Britain during each of the fourteen years 1875-88:—

Years.	Cattle.					Sheep.			Swine.			Years.		
	Oxen, Bulls, and Cows.				Calves.	Total.	Sheep.	Lambs.	Total.	Fat Swine.	Store Swine.		Total.	
	Fat Cattle.	Store Cattle for Slaughter or Breeding purposes.	Other Cattle.	Total.										
1875. . .	494,561	395,278	51,757	941,596	55,704	997,300	162,207	478,072	640,279	466,279	74,421	540,700	1,181,000	1875.
1876. . .	379,254	526,512	16,718	922,484	61,847	984,331	476,671	311,387	788,058	456,944	37,973	494,917	1,283,000	1876.
1877. . .	560,699	505,318	17,708	1,083,725	58,299	1,142,024	612,396	199,945	812,341	612,341	50,522	662,863	1,475,204	1877.
1878. . .	616,864	418,270	4,254	1,039,388	73,204	1,112,592	666,098	165,971	832,069	601,587	65,568	667,155	1,499,224	1878.
1879. . .	567,697	320,544	6,848	895,089	55,264	950,353	556,071	186,780	742,851	671,815	61,964	733,779	1,405,634	1879.
1880. . .	376,008	437,078	9,512	822,608	55,471	878,079	619,858	221,885	841,743	641,685	55,551	697,236	1,538,921	1880.
1881. . .	479,235	595,619	7,971	1,082,825	61,832	1,144,657	612,202	181,224	793,426	646,522	66,662	713,184	1,506,610	1881.
1882. . .	551,777	437,274	5,685	994,736	55,259	1,050,005	616,548	166,325	782,873	653,469	65,693	719,162	1,502,631	1882.
1883. . .	576,692	378,518	1,515	956,725	66,897	1,023,622	613,135	143,221	756,356	613,265	37,394	650,659	1,403,924	1883.
1884. . .	570,680	467,512	2,970	1,041,162	72,546	1,113,708	616,419	177,898	794,317	657,227	50,681	707,908	1,502,225	1884.
1885. . .	565,748	465,698	1,884	1,033,330	59,590	1,092,920	616,612	166,680	783,292	676,632	37,213	713,845	1,490,137	1885.
1886. . .	555,168	466,545	1,547	1,023,260	62,666	1,085,926	612,642	166,269	778,911	654,466	57,719	712,185	1,466,651	1886.
1887. . .	551,129	505,076	2,585	1,058,790	58,875	1,117,665	612,664	166,264	778,928	648,158	62,266	710,424	1,458,352	1887.
1888. . .	562,587	466,600	2,641	1,031,828	67,235	1,099,063	616,748	167,264	784,012	648,812	66,269	715,081	1,463,093	1888.

From the foregoing it is evident that some of the younger animals included in the Statistics of Exports must of necessity escape enumeration in June of each year when the returns of live stock are collected for this Department. Viewing the number of animals exported in relation to those enumerated it will be observed that in cattle the number exported bear a relation of 18.6 per cent. to those enumerated in 1888, as compared with 16.1 per cent. in 1887; in sheep 17.6 per cent. as compared with 16.2 per cent. in 1887; and in pigs 39.0 per cent. as compared with 34.1 per cent. in 1887.

From the same Report it appears that the number of horses exported in 1888 amounted to 29,828, equal to 5.3 per cent. of those enumerated.

It also appears that during the same period there were imported into Ireland, 2,480 horses, 221 cattle, 40,122 sheep, and 153 pigs. Imports of Live Stock

### HONEY PRODUCED IN 1887.

In connexion with the Agricultural Statistics for 1888, Returns were obtained of the amount of Honey produced in the year 1887, and of the number of swarms at work. Tables compiled from the information contained in these Returns are given in the Produce Report presented to Parliament last year. Honey produced in 1887.

### SCUTCHING MILLS IN IRELAND.

The number of Mills for scutching Flax in Ireland in 1888 was 1,070, being a decrease of 8 compared with 1887, and a decrease of 124 in the ten years, 1879-1888. 1,056 of these Mills in 1888 were in Ulster, 4 in Munster, 2 in Connaught, and 8 in Leinster. There were 460 Mills with from 1 to 4 stocks; 315 having 5 or 6; 256 with from 7 to 12; 32 having from 13 to 18, and 7 having above 18 stocks; 871 were worked by water power; 126 by steam; and 73 by water and steam. Scutching Mills, 1888.

The following is the number of Scutching Mills, in each year, from 1879 to 1888 inclusive, by Provinces:— Scutching Mills, 1879 to 1888.

Provinces.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.
Leinster, . . .	9	8	9	7	8	9	7	7	7	8
Munster, . . .	15	18	15	19	15	12	9	6	6	4
Ulster, . . .	1,152	1,140	1,155	1,114	1,089	1,085	1,067	1,035	1,063	1,056
Connaught, . .	15	16	13	12	10	8	9	5	2	2
IRELAND, . .	1,194	1,182	1,172	1,133	1,122	1,115	1,092	1,063	1,078	1,070



Scutching  
Mills, 1888.

TABLE XII.—SHOWING by COUNTIES and PROVINCES the Number of SCUTCHING MILLS in 1888, classified according to the number of Stocks in each Mill, and the Power used in working them:—

PROVINCES AND COUNTIES IN WHICH THERE WERE SCUTCHING MILLS.	CLASSIFICATION OF MILLS.					Total No. of Mills.	POWER EMPLOYED.				
	Having 1, 2, 3 or 4 Stocks.	Having 5 or 6 Stocks.	Having above 6 but not exceeding 12 Stocks.	Having above 12 but not exceeding 18 Stocks.	Having above 18 Stocks.		Water.	Steam.	Water and Steam.	Horse.	Wind.
LEINSTER:											
Longford, . . .	.	.	.	1	.	1	1	.	.	.	.
Louth & Drogheda, Co. of Town, . . .	.	.	4	1	.	5	3	2	.	.	.
Meath, . . .	.	2	.	.	.	2	2	.	.	.	.
Total, . . .	.	2	4	2	.	8	6	2	.	.	.
MUNSTER:											
Cork, . . .	3	.	1	.	.	4	3	.	1	.	.
Total, . . .	3	.	1	.	.	4	3	.	1	.	.
ULSTER:											
Antrim, . . .	65	41	29	3	.	138	125	7	8	.	.
Armagh, . . .	15	36	32	4	2	86	76	16	5	.	.
Carraig, . . .	7	50	11	1	2	41	35	6	.	.	.
Down, . . .	127	24	14	.	.	165	153	5	7	.	.
Donegal, . . .	25	61	74	13	1	179	161	51	26	.	.
Fermanagh, . . .	11	6	5	2	.	24	21	2	1	.	.
Londonderry, . . .	109	48	20	1	1	179	153	6	9	.	.
Monaghan, . . .	22	36	22	3	1	74	68	11	5	.	.
Tyrone, . . .	87	51	35	3	.	176	158	19	19	.	.
Total, . . .	457	313	249	30	7	1,056	861	123	72	.	.
CONNAUGHT:											
Leitrim, . . .	.	.	1	.	.	1	1	.	.	.	.
Mayo, . . .	.	.	1	.	.	1	.	1	.	.	.
Total, . . .	.	.	2	.	.	2	1	1	.	.	.
TOTAL OF IRELAND,	460	315	256	32	7	1,070	871	126	73	.	.



## SILOS AND ENSILAGE.

Following the course adopted in 1887, in view of the interest attaching to the question of Ensilage, I communicated with those Landed Proprietors and Landholders, throughout the country, having Silos or otherwise making Ensilage, requesting them to favour me with certain details regarding the methods followed and the results obtained in the year 1888. I received replies to 267 out of 327 circulars issued by me, and I beg to express my obligations to my correspondents for the valuable and interesting information afforded. It will be found set forth in the Appendix, pp. 68-123.

The following Table shows, by Counties and Provinces, the number of Silos or Stacks mentioned in the communications received from the persons who forwarded replies to the circular above referred to:—

Counties.	Number in 1887.	Number in 1888.	Counties.	Number in 1887.	Number in 1888.
Antrim, . . . .	26	33	Mayo, . . . .	11	10
Armagh, . . . .	—	3	Meath, . . . .	54	74
Carlow, . . . .	3	11	Monaghan, . . . .	2	4
Cavan, . . . .	4	13	Queen's, . . . .	21	37
Clare, . . . .	5	14	Roscommon, . . . .	11	2
Cork, . . . .	22	49	Sligo, . . . .	2	2
Donegal, . . . .	3	6	Tipperary, . . . .	14	35
Dowry, . . . .	25	16	Tyrone, . . . .	9	7
Dublin, . . . .	12	12	Waterford, . . . .	5	6
Fermanagh, . . . .	4	9	Westmeath, . . . .	8	19
Galway, . . . .	25	25	Wexford, . . . .	2	5
Kerry, . . . .	3	5	Wicklow, . . . .	21	16
Kildare, . . . .	21	9			
Kilkenny, . . . .	15	14	PROVINCES.		
King's, . . . .	22	35			
Leitrim, . . . .	9	13	Leinster, . . . .	170	240
Limerick, . . . .	9	12	Munster, . . . .	55	120
Londonderry, . . . .	27	29	Ulster, . . . .	100	120
Longford, . . . .	9	5	Connaught, . . . .	55	52
Louth, . . . .	2	5			
			TOTAL OF IRELAND,	384	532

In conclusion I have to thank the occupiers and owners of land in general for their courtesy in supplying the information required for the various agricultural returns to the Enumerators. I have also to express my thanks to the District Inspectors of the Royal Irish Constabulary and the Sergeants of the Metropolitan Police, who have furnished the valuable notes on the local circumstances affecting agriculture in the various parts of the country, which will be found at pages 58 to 67, and to add, as I do, with much pleasure, that the Enumerators discharged their duty with their usual efficiency.

I have the honour to remain,

Your Excellency's faithful servant,

T. W. GRIMSHAW,

*Registrar-General.*

*General Register Office,  
Charlemont House, Dublin,  
30th May, 1889.*







TABLE 3.—Showing, by Poor Law Unions, the NUMBER of HOUSES, their SIZE in SQUARE ACRES, and the DIVISION of LAND in the Year 1888.

POOR LAW UNIONS.	NUMBER OF HOUSES AND THEIR SIZE IN SQUARE ACRES.								TENS. NUMBER OF HOUSES.	DIVISION OF LAND.								TOTAL.
	Not enclosed.									Enclosed.								
										Arable.	Pasture.	Fallow.	Wood and Plantations.	By the Road.	Water.	Unproductive.	Other.	
	Acres.	4.	5.	6.	7.	8.	9.		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.		
Albany.	424	283	263	265	261	336	209	22	3,252	41,290	69,036	29	3,368	5,841	983	4,981	227,225	
Albany.	253	226	341	1,356	647	471	109	13	2,384	48,189	57,483	8	3,811	5,849	385	5,032	217,127	
Albany.	647	223	428	426	604	225	149	70	2,365	32,202	22,465	27	3,148	960	153	4,473	53,214	
Albany.	620	1,304	3,042	5,160	788	800	69	16	2,046	73,249	22,632	11	2,544	4,806	1,272	6,771	124,947	
Albany.	615	207	1,043	3,070	488	323	125	23	4,027	26,353	81,485	50	3,439	14,181	86	7,284	124,544	
Albany.	234	476	281	1,878	421	421	233	13	1,367	69,036	72,739	283	3,368	5,839	347	6,406	161,158	
Albany.	124	314	1,180	1,356	261	241	54	2	2,048	22,738	33,541	4	586	9,057	624	4,712	63,911	
Albany.	853	254	1,753	1,356	527	229	159	60	1,766	22,247	46,641	1	1,089	63,344	22	5,722	153,411	
Albany.	335	416	930	542	321	250	164	30	17,022	29,863	60,116	33	3,038	23,773	547	6,432	160,687	
Albany.	600	547	1,326	1,947	117	209	121	94	4,072	22,443	73,309	102	4,032	17,684	28,293	6,381	145,933	
Albany.	115	104	346	678	436	305	29	25	2,138	25,819	47,295	15	487	7,167	29,306	3,801	102,187	
Albany.	144	518	327	777	184	234	144	4	2,748	29,961	55,733	1	1,146	14,011	214	3,714	100,078	
Albany.	523	304	1,148	1,832	457	343	51	7	5,978	37,502	64,151	29	1,089	6,943	5,863	5,863	111,162	
Albany.	200	447	1,726	1,356	489	475	55	76	7,469	46,620	54,754	1,644	3,085	12,335	7,469	12,335	156,864	
Albany.	144	306	1,336	1,231	630	450	87	22	4,681	25,897	68,767	60	876	12,717	17,651	3,764	122,516	
Albany.	14	42	119	96	31	127	183	46	763	4,638	46,611	27	28	1,800	16,776	1,798	71,431	
Albany.	646	407	438	271	775	125	147	64	4	5,242	46,283	38,478	77	1,180	181	480	5,283	79,349
Albany.	252	204	354	504	457	343	51	7	5,978	37,502	64,151	29	1,089	6,943	5,863	5,863	111,162	
Albany.	435	783	2,460	1,541	438	344	91	28	1,768	22,746	66,454	81	1,371	1,557	3,257	3,789	125,106	
Albany.	220	42	144	366	804	649	91	28	1,768	22,746	66,454	81	1,371	1,557	3,257	3,789	125,106	
Albany.	80	42	150	366	478	336	177	62	8	1,863	12,364	43,778	177	668	4,806	4,818	3,299	104,485
Albany.	112	178	1,343	1,443	441	211	51	13	2	5,762	28,261	43,778	88	780	1,333	13,887	3,686	104,485
Albany.	847	379	144	366	478	336	177	62	8	1,863	12,364	43,778	177	668	4,806	4,818	3,299	104,485
Albany.	27	276	166	367	110	128	116	60	58	6,218	8,914	55,454	7	2	100,394	29,108	6,078	127,538
Albany.	144	163	367	299	221	218	123	67	4	1,607	50,713	45,469	22	2,495	7,473	123	3,271	61,836
Albany.	134	481	2,281	2,078	680	272	120	61	5	5,603	86,009	50,713	42	8,682	32,478	7,841	6,557	108,886
Albany.	73	154	359	73	649	362	106	129	10	3,796	18,008	60,713	140	1,641	25,844	62,884	7,790	149,481
Albany.	231	317	347	354	440	437	165	42	2	3,963	40,444	63,595	46	3,448	959	1,822	2,660	164,610
Albany.	763	411	750	366	688	688	119	6	5,603	86,009	104,768	60	3,448	5,813	3,813	1,194	163,127	
Albany.	147	561	1,353	366	261	55	20	6	5,603	25,898	58,166	6	618	693	252	4,301	60,661	
Albany.	256	238	1,333	1,353	303	199	79	17	1	3,793	25,871	66,917	1	799	636	6,503	3,396	180,737
Albany.	553	236	394	579	340	402	223	25	7	2,642	22,263	67,118	1	6,648	5,114	11,262	4,242	123,630
Albany.	210	346	841	679	617	545	284	29	17	3,114	46,071	67,919	103	2,026	4,244	1,722	8,610	102,138
Albany.	174	655	2,216	1,367	688	316	79	61	4	4,739	25,897	62,275	81	1,362	24,302	31,478	6,588	144,598
Albany.	231	655	2,216	1,367	688	316	79	61	4	4,739	25,897	62,275	81	1,362	24,302	31,478	6,588	144,598
Albany.	290	349	437	607	807	214	74	13	2	1,818	26,326	53,200	35	744	718	320	2,436	67,420
Albany.	8	32	344	618	463	34	74	33	11	1,969	18,543	22,359	4	467	6,555	20,771	3,891	81,756
Albany.	636	773	1,122	1,704	380	180	131	72	6	6,688	37,833	32,460	9	1,414	32,545	5,074	3,896	163,886
Albany.	47	27	446	467	596	179	44	12	4	1,915	7,413	26,238	1	108	1,809	20,709	1,284	79,445
Albany.	480	326	3,333	2,569	668	289	79	18	1	7,767	63,826	52,145	13	3,402	4,654	744	13,615	161,691
Albany.	265	314	369	268	343	211	179	62	11	1,796	32,717	48,209	29	2,636	568	828	5,681	67,523
Albany.	286	384	1,481	1,419	294	180	72	44	2	4,032	25,898	46,641	88	540	15,220	2,695	8,619	102,386
Albany.	167	431	1,480	1,219	260	118	69	62	70	3,412	8,914	48,448	109	728	46,552	10,254	12,343	123,630
Albany.	186	270	497	323	450	302	128	26	12	2,104	26,136	46,989	13	4,898	1,286	84,290	3,811	117,473
Albany.	534	226	1,496	1,367	540	269	62	31	4	3,944	33,561	44,673	83	1,636	6,535	16,035	3,798	101,679
Albany.	282	266	381	679	421	343	80	18	1	3,656	30,400	47,743	8	676	4,479	2,022	4,835	60,485
Albany.	221	306	1,128	1,628	884	366	33	7	1	2,656	24,879	29,403	377	444	2,084	968	8,443	72,393
Albany.	226	347	433	262	563	227	119	81	7	1,793	17,813	46,467	407	6,744	1,860	35,164	2,990	87,797
Albany.	463	217	131	305	364	429	96	31	3	3,073	69,880	46,236	168	1,287	4,664	5,128	4,610	113,909
Albany.	473	616	1,719	3,341	463	377	43	5	6	4,096	60,389	36,271	52	1,173	8,960	9,254	3,615	96,726
Albany.	173	680	3,064	1,864	807	509	39	8	5,548	44,671	46,247	8	1,800	1,394	220	8,182	101,543	
Albany.	770	833	467	477	699	72	579	76	8	4,618	66,006	36,474	262	8,642	7,092	7,150	8,028	108,732
Albany.	86	83	114	190	779	222	29	46	8	1,604	3,132	29,899	2	713	2,149	14,937	3,236	81,363
Albany.	288	123	283	204	817	803	144	51	4	1,790	34,880	72,740	22	1,688	481	681	1,641	33,224
Albany.	262	802	472	851	394	146	164	33	11	1,207	17,999	47,444	28	1,792	4,531	139	2,674	74,228
Albany.	88	178	268	480	421	436	144	67	18	9,478	16,000	49,367	1,531	130	16,880	48,053	5,815	228,570
Albany.	110	434	1,485	1,306	271	379	144	67	30	4,527	39,444	81,201	1	1,174	18,226	48,053	7,169	166,386
Albany.	1,003	630	1,363	1,687	768	808	180	22	4	6,119	76,489	25,446	280	3,398	1,804	8,947	7,073	167,441
Albany.	239	803	364	437	509	398	180	30	7	2,708	34,774	66,436	62	2,041	6	613	6,026	60,964
Albany.	89	169	161	701	265	265	66	20	16	3,022	18,590	46,056	29	868	18,869	18,445	3,331	99,693
Albany.	639	277	258	124	133	224	74	22	8	1,708	16,347	16,347	34	837	1,040	3,024	4,339	42,214
Albany.	26	180	349	114	143	231	128	36	6	4,982	49,989	19,718	78	824	5,603	6,127	48,508	
Albany.	474	1,242	1,362	846	266	151	162	26	6	4,982	49,989	19,718	78	824	5,603	6,127	48,508	
Albany.	79	481	1,222	816	229	149	22	14	17	2,616	21,417	24,621	7	1,273	24,621	69,033	4,768	144,889
Albany.	604	236	2,077	1,017	474	146												



TABLE 2.—Showing, by POOR LAW UNIONS, the NUMBER of HEADINGS, their SIZE in STATUTE ACRES, and the DIVISION of LAND in the Year 1888—continued.

POOR LAW UNIONS.	STATUTE ACRES AND OTHER SIZE OF STATUTE ACRES.										TERRACE ACRES.										Total.
	Not exceeding										Exceeding										
	Area.	< 1.	< 2.	< 3.	< 4.	< 5.	< 6.	< 7.	< 8.	< 9.	Area.	< 10.	< 11.	< 12.	< 13.	< 14.	< 15.	< 16.	< 17.	< 18.	
Grassland, -	377	423	1,281	1,482	571	254	136	46	7	4,542	36,145	11,728	38	1,779	16,012	226	6,925	33,802	6,925	33,802	33,802
Arable, -	305	284	2,594	1,544	487	245	83	31	10	3,511	31,918	85,497	1	603	26,022	27,869	5,595	5,595	5,595	5,595	5,595
Woodland, -	171	212	748	119	486	231	59	11		7,753	28,477	47,490	8	1,642	2,642	3,648	6,041	6,041	6,041	6,041	6,041
Water, -	301	153	561	498	548	74	871	113	10	8,200	43,517	102,326	145	2,161	13,246	17,497	7,279	7,279	7,279	7,279	7,279
Total, -	220	280	620	650	324	213	143	108	18	2,438	59,854	25,948	4	1,629	2,649	138	4,744	138	4,744	138	138
Arable, -	25	44	585	354	386	360	815	126	28	2,116	15,577	49,389	11	2,548	22,858	42,140	7,692	7,692	7,692	7,692	7,692
Woodland, -	100	878	1,445	775	183	60	115	11	11	2,136	15,543	25,781	24	4,142	735	28,445	8,234	8,234	8,234	8,234	8,234
Water, -	354	357	448	720	435	431	168	31	3	2,902	14,565	39,779	146	1,771	822	3,232	6,866	6,866	6,866	6,866	6,866
Total, -	89	75	254	432	419	284	94	42	3	1,629	22,668	40,571	1	287	8,819	2,673	2,673	2,673	2,673	2,673	2,673
Water, -	85	316	527	486	302	153	58	60	28	1,215	39,080	27,441	22	284	45,448	10,472	10,472	10,472	10,472	10,472	10,472
Arable, -	200	254	616	684	874	386	312	118	20	4,201	29,429	56,525	37	5,585	20,269	73,814	7,644	7,644	7,644	7,644	7,644
Woodland, -	122	138	119	89	337	224	144	22	4	1,216	2,669	37,961	226	940	6,255	7,692	7,692	7,692	7,692	7,692	7,692
Water, -	327	885	790	1,012	868	427	168	31	7	2,655	37,969	85,733	20	1,755	1,444	8,234	8,234	8,234	8,234	8,234	8,234
Total, -	142	196	178	324	594	332	144	42	3	1,264	22,622	46,526	114	1,785	3,213	9,465	9,465	9,465	9,465	9,465	9,465
Arable, -	277	382	784	922	684	847	127	30	14	8,797	31,794	61,180	1	1,622	2,322	14,125	4,684	4,684	4,684	4,684	4,684
Woodland, -	114	116	869	604	404	821	103	40	39	5,713	23,540	40,982	26	1,170	1,347	15,292	5,713	5,713	5,713	5,713	5,713
Water, -	291	384	711	616	822	484	144	29	25	8,155	45,422	25,946	26	1,277	6,210	21,442	8,462	8,462	8,462	8,462	8,462
Total, -	363	791	1,620	1,616	731	650	261	54	7	4,416	47,741	107,448	316	4,554	4,791	11,111	7,393	7,393	7,393	7,393	7,393
Arable, -	415	170	822	489	386	816	120	35	3	5,132	30,660	40,678	47	8,637	2,854	39,464	4,202	4,202	4,202	4,202	4,202
Woodland, -	214	226	873	1,179	663	389	69	31	1	8,280	29,732	56,238	12	1,216	8,428	9,645	9,645	9,645	9,645	9,645	9,645
Water, -	259	427	619	467	800	630	235	76	7	8,282	30,434	82,435	5	858	15,022	7,972	4,900	4,900	4,900	4,900	4,900
Total, -	419	180	184	1,322	897	499	212	53	8	3,413	39,214	42,515	603	1,229	9,839	22,476	7,199	7,199	7,199	7,199	7,199
Arable, -	319	282	1,284	1,135	482	226	64	33	3	3,686	29,280	39,936	9	2,541	19,543	594	1,738	1,738	1,738	1,738	1,738
Woodland, -	312	402	1,036	1,045	540	426	344	142	56	4,177	30,315	38,567	40	4,794	22,154	26,468	8,205	8,205	8,205	8,205	8,205
Water, -	806	1,090	1,622	1,356	479	191	50	7		4,719	41,306	27,754	81	850	8,048	16	2,573	7,542	7,542	7,542	7,542
Total, -	73	86	136	260	444	803	410	65	2	2,979	38,602	62,126	22	2,029	27,202	29,573	7,934	7,934	7,934	7,934	7,934
Arable, -	388	476	3,222	1,373	667	247	41	18	5	7,486	31,189	60,685	32	1,682	12,814	15,292	7,834	7,834	7,834	7,834	7,834
Water, -	306	123	265	335	348	818	227	48	12	3,361	39,285	41,768	26	2,525	5,417	15,076	3,465	3,465	3,465	3,465	3,465
Arable, -	109	94	1,805	1,752	704	801	21	13	7	4,734	39,289	32,364	205	3,213	25,023	4,679	4,679	4,679	4,679	4,679	4,679
Woodland, -	228	167	366	879	376	422	268	27	4	2,121	41,219	31,489	242	3,153	3,288	4,761	4,761	4,761	4,761	4,761	4,761
Water, -	385	613	1,216	1,657	409	267	50	16	4	3,436	36,673	56,293	68	1,667	1,667	20,466	7,167	7,167	7,167	7,167	7,167
Total, -	46	82	327	414	381	228	175	50	4	1,924	14,818	41,221	16	1,613	4,276	19,226	2,899	2,899	2,899	2,899	2,899
Arable, -	368	163	897	877	503	843	81	16	7	2,272	29,267	49,425	1	2,113	1,626	19,226	3,925	3,925	3,925	3,925	3,925
Woodland, -	306	311	1,721	1,479	499	189	49	8		3,397	34,199	52,648	80	1,111	8,420	251	6,848	6,848	6,848	6,848	6,848
Water, -	185	358	733	1,087	548	273	87	8	1	5,190	44,431	43,448	44	1,974	2,792	2,654	7,473	7,473	7,473	7,473	7,473
Total, -	38	458	1,246	822	375	200	58	77	8	2,072	39,285	52,346	16	2,143	30,771	256	9,212	9,212	9,212	9,212	9,212
Arable, -	636	854	1,262	1,611	606	606	260	37	21	2,674	39,285	36,228	81	4,467	10,781	17,662	7,446	7,446	7,446	7,446	7,446
Water, -	640	685	925	394	676	819	269	344	24	4,733	40,192	121,298	26	2,472	16,115	78	8,366	8,366	8,366	8,366	8,366
Arable, -	800	747	817	691	488	488	344	154	29	4,218	39,196	221,820	114	2,472	20,285	14,397	7,399	7,399	7,399	7,399	7,399
Woodland, -	474	584	469	314	158	167	184	87	17	2,571	20,622	50,536	17	2,501	880	9	4,941	4,941	4,941	4,941	4,941
Water, -	797	814	711	835	468	426	230	122	10	8,219	46,771	102,445	7	2,546	3,684	16,776	6,725	6,725	6,725	6,725	6,725
Total, -	470	768	487	527	616	742	267	51	1	8,031	39,277	60,940	15	969	6,004	6,315	8,215	8,215	8,215	8,215	8,215
Arable, -	323	584	254	817	626	746	230	80	6	4,235	61,686	39,333	50	8,804	6,211	8,826	2,926	2,926	2,926	2,926	2,926
Woodland, -	1,044	1,770	4,877	1,854	924	214	26	19	1	5,463	57,712	52,828	561	2,108	1,008	78,326	2,889	2,889	2,889	2,889	2,889
Water, -	165	481	726	1,078	548	215	73	12	5	4,681	24,431	36,148	4	4,207	1,657	943	1,367	1,367	1,367	1,367	1,367
Total, -	192	528	776	779	314	163	78	29	12	2,588	29,280	57,729	11	1,619	8,004	1,677	4,217	4,217	4,217	4,217	4,217
Arable, -	522	292	1,364	1,412	578	616	178	29	3	3,433	32,514	34,511	25	877	18,366	11,874	7,167	7,167	7,167	7,167	7,167
Water, -	313	256	1,686	995	228	169	81	28	35	2,247	4,620	54,018	127	1,309	22,461	81,031	8,798	8,798	8,798	8,798	8,798
Arable, -	387	648	1,003	910	383	430	245	318	29	4,741	36,538	39,386	321	2,064	66,261	5,432	6,212	6,212	6,212	6,212	6,212
Woodland, -	169	290	351	379	945	171	60	7		2,940	12,563	41,991	15	1,061	16,199	2,852	2,472	2,472	2,472	2,472	2,472
Water, -	613	692	423	270	169	125	74	26	7	2,370	16,228	22,194	81	3,783	7,317	3,660	5,671	5,671	5,671	5,671	5,671
Total, -	625	840	428	425	445	257	155	112	34	8,190	42,415	28,511	149	21,099	8,820	61,148	7,166	7,166	7,166	7,166	7,166
Arable, -	815	321	334	426	322	839	151	33	6	2,672	52,538	39,467	8	1,245	1,794	217	8,666	8,666	8,666	8,666	8,666
Woodland, -	293	418	1,294	756	326	187	148	99	8	3,471	31,749	35,434	4	1,325	13,418	80	8,287	8,287	8,287	8,287	8,287
Water, -	440	468	622	771	480																







TABLE 5.—SHOWING, BY COUNTIES AND PROVINCES, THE EXTENT OF LAND

COUNTIES.	EXTENT UNDER CROPS											
	CORN, GRAIN, AND PRAIRIE.											
	Wheat.	Oats.	Barley.	Rye.	Sp. Rye.	Maize.	Potatoes.	Grain.	Potatoes.	Vegetables.	Extent of Wood and Pasture.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
ANDERSON, . . . .	2,502	70,204	200	5	24	1,737	40	23,700	44,007	10,220	208	
ARMOUR, . . . .	4,007	24,000	20	1	144	100	3	20,000	22,000	7,410	937	
CARSON, . . . .	1,070	20,000	4,000	•	10	•	•	27,207	9,200	4,900	672	
CLAY, . . . .	270	20,000	20	2	100	7	2	40,007	27,000	2,710	420	
CLARK, . . . .	2,240	12,000	540	21	1,000	40	4	15,000	22,000	8,710	2,710	
CORR, . . . .	22,700	20,000	15,000	20	270	25	25	120,000	64,000	30,000	8,200	
DONALD, . . . .	471	20,000	1,707	20	207	121	120	20,000	40,000	10,000	100	
DOWNS, . . . .	17,001	20,000	200	10	170	100	101	120,701	40,000	10,707	1,200	
DUNN, . . . .	4,004	14,007	2,007	2	107	10	10	20,000	4,007	2,007	671	
FINDLAY, . . . .	1,000	20,107	20	20	410	10	2	21,000	12,000	2,000	600	
GALWAY, . . . .	2,700	44,000	2,000	10	1,007	7	111	20,000	44,000	12,100	2,200	
KERRY, . . . .	1,000	20,000	1,000	20	710	1	•	20,000	20,000	8,000	1,000	
KILMORE, . . . .	2,045	24,000	14,100	10	440	•	2	40,000	2,000	11,000	1,000	
KILPATRICK, . . . .	2,204	20,000	15,000	1	7	1	4	27,007	17,000	2,000	1,710	
KNOX, . . . .	600	21,200	16,700	10	620	2	2	20,000	15,000	10,100	1,000	
LEITCH, . . . .	47	12,000	2	2	200	1	•	12,000	17,000	1,000	200	
LEITCH, . . . .	2,245	10,000	600	1	43	1	1	24,000	20,000	4,000	1,700	
LEITCH, . . . .	1,004	10,000	1,200	2	240	110	10	70,000	20,000	14,000	200	
LEITCH, . . . .	201	14,000	24	2	204	4	4	14,000	11,000	2,000	400	
LEITCH and THOMAS, County of Town.	1,204	25,000	16,100	2	21	100	21	41,000	11,000	2,000	640	
MAY, . . . .	1,000	21,70	200	24	2,440	2	2	20,000	40,000	2,210	200	
MEATH, . . . .	1,470	20,007	540	2	240	7	2	20,001	17,000	2,000	1,500	
MONTAGUE, . . . .	200	47,000	700	2	114	20	2	40,000	21,007	7,007	770	
QUINN, . . . .	600	20,700	21,700	2	40	2	•	40,000	10,000	12,000	1,000	
ROSCOMMON, . . . .	200	20,000	100	2	1,010	4	1	24,000	25,000	4,000	770	
SULLY, . . . .	240	20,000	601	1	200	1	20	21,000	10,000	2,007	707	
THOMAS, . . . .	2,200	47,000	17,000	40	120	10	2	74,000	22,000	10,000	2,000	
THOMAS, . . . .	1,000	20,000	72	16	200	21	4	100,000	40,000	15,000	600	
WATSON, . . . .	2,000	20,007	1,201	1	27	1	•	20,000	14,000	2,210	1,000	
WATSON, . . . .	20	10,000	200	2	240	1	•	10,000	10,000	2,000	1,000	
WATSON, . . . .	2,700	20,000	21,007	2	27	1,004	2	20,000	22,000	17,000	2,100	
WATSON, . . . .	1,000	24,007	400	•	2	2	1	20,000	10,000	2,001	770	
PROVINCES.												
LEITCH, . . . .	21,000	20,000	21,000	77	2,000	2,000	100	40,000	10,000	20,000	10,000	
LEITCH, . . . .	20,000	20,000	20,000	107	2,000	77	27	20,000	10,000	71,000	10,000	
LEITCH, . . . .	20,000	20,000	2,000	110	2,000	2,000	400	20,000	20,000	27,000	2,000	
LEITCH, . . . .	2,000	10,000	2,000	21	2,000	22	100	10,000	10,000	20,000	2,000	
TOTAL, . . . .	20,000	1,200,000	170,000	200	10,000	2,000	700	1,700,000	200,000	200,000	40,000	



CROPS IN THE YEAR 1888, THE VALUATION IN 1888, AND THE POPULATION IN 1881.

IN STATUTE ACRES.

CROPS.						CROPS FOR HAY ONLY.			TOTAL CROPS UNDER CROPS.	Value in £.	Population in 1881.	COUNTIES.
Crops and Pasture.	Cereals.	Tubers.	Roots.	Other Crops.	Total.	Cereals.	Other Crops.	Other Crops.				
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	£		
85	308	1,177	87	307	57,481	15,725	20,344	44,854	262,304	1,229,790	421,943	ARMER.
37	264	475	45	388	37,364	8,323	20,693	21,804	148,666	478,520	373,137	ARMER.
103	803	83	30	893	15,584	.	13,690	20,613	76,673	165,060	45,968	CARLOW.
33	1,214	81	87	1,814	28,819	6,794	18,124	86,738	180,882	274,354	126,478	CAYAN.
126	1,744	44	22	707	35,354	38	4,897	28,871	148,081	367,364	141,607	CLARE.
428	4,806	1,738	271	2,532	111,788	80	82,775	152,473	424,138	1,228,681	481,607	CORR.
82	1,584	656	28	879	68,053	12,151	20,042	41,528	228,520	296,686	266,656	DUBLIN.
124	584	1,213	117	2,698	71,573	19,886	68,485	11,876	226,618	859,684	273,107	DURY.
207	1,630	56	33	1,630	15,181	.	11,682	30,698	85,712	1,402,005	438,816	DURIN.
43	420	64	27	478	20,440	9,768	8,889	54,384	184,404	358,081	86,071	FERRISBURGH.
61	2,610	187	2,603	812	64,637	18	18,646	64,463	265,518	476,484	267,066	GALWAY.
63	4,116	91	809	692	42,884	20	8,040	94,312	174,543	228,500	200,000	KERRY.
164	881	102	502	410	28,617	.	18,124	47,312	120,378	221,618	79,884	KILBARR.
47	1,782	202	11	884	20,375	1	24,047	44,783	127,734	221,628	94,431	KILKENNY.
182	723	41	713	638	58,758	.	18,053	41,727	120,884	264,858	72,462	KIN.
21	1,236	28	28	869	51,868	80	1,467	68,518	83,786	196,880	86,272	LIMER.
156	1,806	101	194	430	36,302	8	8,781	102,678	176,486	428,737	186,882	LONGFORD.
88	484	225	32	1,471	48,374	15,103	30,328	34,340	127,624	281,602	166,951	LONDON.
58	778	25	28	465	14,442	80	6,084	22,082	63,080	185,382	63,080	LONDON.
87	458	262	29	658	22,808	431	17,254	8,577	91,879	220,228	77,884	LOUTH & DOWNING, County of Down.
27	1,587	242	246	610	82,187	143	15,038	68,177	171,738	814,778	246,212	MAYO.
127	474	26	32	1,884	21,142	80	18,686	77,180	141,892	446,787	87,460	MELRO.
50	425	122	81	613	21,858	12,141	26,470	12,827	122,814	201,282	100,748	MORRIS.
30	848	82	128	817	81,881	.	15,884	41,696	180,180	266,848	71,124	QUINCY.
17	1,898	14	708	222	22,868	1	8,084	63,284	120,480	290,808	120,480	ROSCOMON.
28	1,116	20	12	612	39,174	14	8,084	22,887	68,627	218,887	111,878	SLIGO.
124	1,580	248	228	891	68,880	1	21,812	186,882	272,812	686,772	186,812	TIPPERARY.
39	786	168	36	2,207	62,884	20,361	38,386	23,880	226,486	427,885	187,718	TYNOR.
147	1,727	167	8	248	26,886	.	11,257	14,886	84,880	817,427	112,788	WATERFORD.
77	778	88	247	220	10,148	.	7,678	41,788	86,258	816,178	71,738	WATERFORD.
143	1,850	67	122	880	40,888	1	22,330	21,738	94,138	218,738	120,854	WEXFORD.
49	676	70	27	497	16,020	.	24,882	44,882	184,880	278,880	51,880	WILLOW.
												PROVINCES.
1,821	30,706	1,875	1,783	8,383	250,788	648	122,482	426,881	1,416,886	4,726,428	1,571,888	LONDON.
1,211	37,423	2,464	884	8,680	888,174	114	117,817	548,184	1,277,348	3,871,228	1,881,118	MORRIS.
408	6,884	4,288	621	13,886	424,178	112,080	204,112	207,312	1,788,140	4,868,840	1,743,878	TYNOR.
141	7,358	286	8,084	8,086	206,308	262	21,881	278,886	617,304	1,484,817	87,887	QUINCY.
3,116	43,808	8,188	8,208	26,086	1,234,148	112,812	807,792	1,584,248	8,348,882	25,028,218	8,174,884	TOTAL.



TABLE 6.—SOWING, BY COUNTIES AND PROVINCES THE

COUNTY.	FURROWS OF						
	COWS, HAY, AND FEED.						
	Wheat.	Oats.	Barley.	Burn.	Spa.	Peas.	Turn.
ANTRIM, . . . .	35,702	1,232,248	15,592	79	768	27,110	889
ARMAGH, . . . .	55,154	853,312	1,570	14	1,799	8,670	120
CARLISLE, . . . .	29,669	294,794	75,637	.	263	.	.
CARRICK, . . . .	4,753	463,077	840	26	1,013	30	29
CLACK, . . . .	25,630	103,748	7,534	252	14,679	299	42
CLARE, . . . .	157,558	1,355,425	220,287	250	8,114	153	156
DUBLIN, . . . .	6,248	1,856,478	30,434	601	11,369	1,832	1,608
DUFF, . . . .	214,200	1,236,104	5,222	223	5,306	6,573	1,425
DUNELM, . . . .	97,722	272,379	42,531	90	1,553	410	1,640
FERRISBURGH, . . . .	12,238	253,538	245	220	8,192	283	79
GALWAY, . . . .	79,808	678,803	42,634	181	37,894	182	1,152
KERRY, . . . .	33,709	832,478	30,147	254	5,610	16	.
KILKENNY, . . . .	33,112	807,438	220,024	298	7,218	.	34
KILMURRAY, . . . .	112,406	440,648	216,344	14	71	14	40
KILPATRICK, . . . .	10,878	337,884	266,637	221	8,380	31	34
LIMERICK, . . . .	88	187,630	22	34	6,000	18	.
LISBERRY, . . . .	72,500	277,266	11,324	18	420	35	10
LONDONDERRY, . . . .	30,214	1,142,420	21,246	58	8,997	8,305	184
LONDON, . . . .	4,245	184,453	812	112	2,784	67	46
Louth and Downham, County of Down.	51,244	823,274	220,725	25	844	1,054	880
MEATH, . . . .	26,322	768,633	18,810	100	37,586	168	35
MONAGHAN, . . . .	24,248	304,377	13,092	81	8,108	112	24
MONTGOMERY, . . . .	12,838	483,436	11,210	104	1,331	504	30
QUEEN'S, . . . .	15,778	360,683	223,222	90	692	80	.
ROSCOMMON, . . . .	8,079	314,532	2,827	10	10,681	64	12
SLIGO, . . . .	3,564	237,268	7,849	11	4,600	16	244
TIPPERARY, . . . .	119,824	718,228	282,280	728	1,420	163	104
TYRONE, . . . .	22,597	1,107,318	890	106	4,380	874	47
WATERFORD, . . . .	81,648	356,867	30,673	12	271	15	.
WATERLOO, . . . .	890	272,381	2,823	112	3,876	17	.
WEXFORD, . . . .	73,696	717,366	322,823	96	283	14,662	82
WICKLOW, . . . .	14,568	822,568	7,687	.	36	45	14
PROVINCES.							
LEINSTER, . . . .	481,723	4,548,144	1,951,470	1,680	28,718	12,620	2,489
MUNSTER, . . . .	485,627	3,254,143	830,682	1,386	57,385	1,320	810
ULSTER, . . . .	380,238	7,323,760	90,498	1,400	23,824	43,641	4,467
CONNAUGHT, . . . .	118,278	2,168,061	67,520	274	26,689	316	1,408
Total, . . . .	1,567,866	17,894,108	2,951,169	3,640	117,032	63,906	8,667



## PRODUCE OF THE CROPS IN THE YEAR 1888.

THE CROPS.								TAT.			COUNTIES.
Grain Crops.								TAT.			
Wheat.	Barley.	Rye & Oats & Buckwheat.	Grain & Potatoes.	Grain.	Wheat.	Rye.	Flax.	Wool, Hides, & Bones, & Other Cattle Products.	Wool, Hides, & Bones, & Other Cattle Products.	Wool, Hides, & Bones, & Other Cattle Products.	
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
181,714	29,079	8,738	300	2,130	11,303	264	478,078	109,070	118,008	109,070	ARMING.
14,873	64,760	8,083	203	1,730	6,154	487	278,700	77,000	82,393	77,000	ARMING.
48,778	26,772	5,842	1,314	8,893	347	546	-	30,336	30,336	30,336	CARLOW.
20,100	58,273	5,222	564	11,309	708	886	172,003	48,378	148,190	148,190	CATY.
28,204	64,808	36,639	1,000	18,732	343	144	587	12,634	220,104	220,104	CLARE.
169,842	308,141	114,694	5,384	37,293	17,364	1,240	2,639	116,818	261,808	261,808	CORK.
131,736	218,848	8,127	303	18,354	5,650	577	202,780	20,648	33,141	33,141	DOWN.
146,200	100,347	11,229	770	4,882	12,700	1,102	330,370	180,887	26,886	26,886	DOWN.
44,812	80,893	13,892	1,469	17,317	838	236	-	26,636	79,111	79,111	DUBLIN.
48,831	98,968	8,800	812	8,280	807	137	68,158	14,473	133,893	133,893	FERRISBURGH.
128,842	124,600	29,240	437	22,813	1,216	34,738	438	24,383	185,487	185,487	GALWAY.
168,803	24,613	10,800	467	15,480	758	2,540	401	21,387	267,780	267,780	KERRY.
26,646	160,136	17,731	800	3,280	695	1,882	-	43,307	104,322	104,322	KILDEA.
67,308	100,806	25,182	444	14,877	826	85	30	84,088	100,182	100,182	KILKENNY.
47,718	146,319	27,463	529	6,984	391	6,788	-	24,337	84,864	84,864	KING'S.
48,800	15,034	4,962	37	12,033	303	228	1,006	4,064	131,074	131,074	LEITH.
74,378	63,638	23,600	1,153	17,606	414	903	913	22,854	301,378	301,378	LEITH.
57,348	117,649	8,335	365	3,795	1,022	794	450,800	60,332	33,783	33,783	LONGFORD.
21,378	24,338	4,337	290	7,461	865	202	1,168	14,303	87,338	87,338	LONGFORD.
42,706	106,125	6,420	794	2,481	1,732	146	13,173	35,842	17,344	17,344	LOUTH and DOWN, County of Town.
148,720	165,579	12,681	340	25,071	1,083	3,539	3,500	24,388	137,628	137,628	MAYO.
53,907	60,660	13,548	1,134	4,535	301	819	2,203	39,488	184,734	184,734	MERTON.
50,894	86,868	5,696	596	2,536	798	514	205,618	87,662	33,364	33,364	MIDLESEX.
65,652	169,688	24,544	173	7,189	431	1,200	-	48,044	91,791	91,791	QUEEN'S.
71,303	26,261	8,896	112	10,968	62	4,161	80	5,228	171,000	171,000	ROSCOMMON.
55,316	43,061	8,558	337	13,202	103	84	403	14,280	81,937	81,937	SLIGO.
116,846	300,600	36,338	2,122	26,182	2,003	1,184	33	68,161	267,493	267,493	TOWNSEND.
198,906	109,464	8,653	562	4,785	1,873	240	228,541	79,000	80,303	80,303	TYNOR.
20,811	68,856	24,680	1,132	8,664	826	84	-	56,819	28,346	28,346	WATERFORD.
28,514	61,632	14,685	112	8,886	439	1,410	-	17,581	114,390	114,390	WICKLOUGH.
16,676	224,609	35,862	1,353	15,780	411	714	80	84,371	77,636	77,636	WICKLOUGH.
28,725	60,819	10,343	382	4,129	854	288	-	33,889	32,432	32,432	WICKLOUGH.
PROVINCES.											TOTAL.
227,634	1,324,841	261,118	18,507	166,403	7,751	12,602	38,753	438,894	1,600,557	1,600,557	
622,077	866,238	236,073	10,628	144,534	21,207	6,845	3,474	253,554	1,295,782	1,295,782	WATERFORD.
862,681	896,638	84,379	3,202	84,128	49,674	4,516	3,303,085	613,025	779,587	779,587	WATERFORD.
493,003	371,644	65,767	1,038	88,713	8,078	25,733	6,815	78,368	687,802	687,802	WATERFORD.
2,222,207	3,300,681	590,088	20,445	303,818	31,708	47,069	3,200,790	1,388,758	3,794,183	3,794,183	TOTAL.



TABLE 7.—SHOWING BY POOR LAW UNIONS, THE EXTENT OF LAND

POOR LAW UNIONS.	CROPS, GRAIN, AND FEEDS.									EXTENT UNDER CROPS		
										Potatoes.	Foreign.	Mixed crops and Pastures.
	Wheat.	Oats.	Barley.	Maize.	Rye.	Beans.	Peas.	Swedes.	Turnips.			
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
ABINGDON, . . . . .	562	7,560	6,425	3	6	1	-	14,095	3,028	3,845	681	
ADDINGTON, . . . . .	548	15,112	35	-	45	222	25	14,482	6,237	1,974	39	
ADDON, . . . . .	604	6,780	4,365	-	7	65	-	13,558	3,548	3,436	248	
ADDON, . . . . .	2,076	25,156	9	-	45	81	-	26,046	15,671	4,314	315	
ADDON, . . . . .	47	6,554	54	2	229	-	-	6,569	4,057	1,377	437	
ADUR, . . . . .	1,176	13,168	14,618	2	40	-	-	79,955	4,776	8,234	607	
ADUR, . . . . .	15	5,468	-	-	1	-	-	5,475	4,407	623	35	
ADUR, . . . . .	15	7,758	66	1	150	-	17	7,924	8,515	1,802	153	
ADUR, . . . . .	62	5,517	243	-	117	-	-	5,444	3,637	1,905	268	
ADUR, . . . . .	1,346	9,290	109	5	145	-	2	9,115	4,153	1,992	268	
ADUR, . . . . .	12	6,785	519	4	1	434	30	6,796	4,159	1,262	11	
ADUR, . . . . .	144	4,030	31	8	75	1	2	4,381	3,291	1,026	190	
ADUR, . . . . .	117	15,474	2	-	2	-	-	15,478	22,440	856	42	
ADUR, . . . . .	29	15,116	12	-	-	-	-	15,126	5,444	2,445	31	
ADUR, . . . . .	79	5,658	7	4	144	82	-	5,847	4,182	558	226	
ADUR, . . . . .	103	379	426	-	3	21	-	508	587	264	210	
ADUR, . . . . .	1,750	3,191	1,295	-	54	-	8	3,122	3,594	855	229	
ADUR, . . . . .	200	6,187	247	-	-	-	-	6,232	3,718	1,626	147	
ADUR, . . . . .	810	22,567	3	3	8	-	4	22,548	5,487	3,961	130	
ADUR, . . . . .	979	7,122	855	-	3	-	1	6,675	3,715	2,528	651	
ADUR, . . . . .	819	1,845	6	-	5	1	-	2,140	2,068	712	196	
ADUR, . . . . .	11	4,105	-	-	80	-	-	4,259	4,055	539	35	
ADUR, . . . . .	415	2,691	5	-	1	-	-	4,678	1,713	919	85	
ADUR, . . . . .	528	8,129	262	1	361	-	-	3,993	3,780	318	-	
ADUR, . . . . .	535	3,545	3,545	-	37	-	2	10,219	9,459	3,518	286	
ADUR, . . . . .	158	4,558	24	-	153	-	-	4,580	2,307	618	173	
ADUR, . . . . .	1,750	3,085	1	2	36	-	-	4,618	4,055	650	189	
ADUR, . . . . .	2,897	5,721	878	-	-	-	-	8,444	2,948	1,344	284	
ADUR, . . . . .	1,718	15,182	4,418	-	10	-	-	21,292	6,028	3,014	640	
ADUR, . . . . .	534	26,177	688	1	3	-	-	11,401	4,965	9,058	62	
ADUR, . . . . .	11	8,490	1	-	117	-	-	8,637	5,048	817	84	
ADUR, . . . . .	705	4,191	69	2	-	-	-	4,248	2,987	1,355	468	
ADUR, . . . . .	2,810	8,193	1,857	1	17	-	1	12,612	4,981	2,152	417	
ADUR, . . . . .	227	8,118	55	7	133	-	-	8,680	5,912	1,625	45	
ADUR, . . . . .	-	17,336	15	-	-	-	-	17,361	7,143	2,369	63	
ADUR, . . . . .	248	2,670	1,339	-	3	-	-	4,672	2,337	867	239	
ADUR, . . . . .	8	7,552	-	-	14	-	-	7,571	3,079	1,185	5	
ADUR, . . . . .	66	3,480	-	-	214	-	-	3,694	5,180	1,802	121	
ADUR, . . . . .	41	1,152	11	-	8	-	-	1,164	2,378	154	45	
ADUR, . . . . .	273	25,581	4	2	84	5	1	10,882	10,129	797	527	
ADUR, . . . . .	694	4,492	802	-	2	-	-	3,789	1,728	1,587	849	
ADUR, . . . . .	13	8,469	28	2	263	2	28	8,783	6,722	1,413	73	
ADUR, . . . . .	-	1,964	241	8	472	-	-	1,993	3,544	1,187	126	
ADUR, . . . . .	2,785	2,967	16	-	16	-	-	3,817	4,369	1,372	189	
ADUR, . . . . .	186	15,429	8	1	16	1	1	11,028	4,596	1,889	129	
ADUR, . . . . .	1,375	3,668	2,887	-	18	-	-	7,664	4,056	2,015	472	
ADUR, . . . . .	332	4,731	2	-	50	11	2	8,270	4,025	894	248	
ADUR, . . . . .	4,659	4,234	63	2	-	-	-	4,338	2,843	846	185	
ADUR, . . . . .	49	16,680	573	-	22	62	6	17,737	7,065	3,184	61	
ADUR, . . . . .	639	15,124	85	10	182	14	1	14,482	7,029	2,179	315	
ADUR, . . . . .	58	14,723	15	-	30	2	1	14,737	7,577	1,367	89	
ADUR, . . . . .	476	15,485	1,332	91	40	2	5	17,176	6,739	4,446	1,246	
ADUR, . . . . .	617	7,718	41	-	81	-	-	8,170	1,128	448	159	
ADUR, . . . . .	1,095	2,745	188	-	1	-	-	8,890	2,022	1,711	266	
ADUR, . . . . .	17	4,638	2	2	42	-	-	8,728	1,983	1,189	204	
ADUR, . . . . .	25	5,170	129	12	264	-	-	3,896	3,323	681	194	
ADUR, . . . . .	32	6,724	11	-	112	10	-	4,027	4,722	308	75	
ADUR, . . . . .	4,628	87,169	81	-	141	85	25	90,622	14,690	5,872	283	
ADUR, . . . . .	440	6,518	3,314	1	7	34	2	12,118	3,690	2,762	228	
ADUR, . . . . .	34	4,698	480	-	46	-	-	5,320	2,680	1,137	68	
ADUR, . . . . .	1,850	2,036	478	-	12	18	60	4,974	2,236	828	179	
ADUR, . . . . .	805	5,175	41	-	-	-	9	5,351	1,269	804	176	
ADUR, . . . . .	595	16,252	7,665	-	16	27	27	20,202	8,780	4,638	288	
ADUR, . . . . .	58	5,645	181	3	161	-	2	5,432	2,669	702	8	
ADUR, . . . . .	690	16,618	4	-	57	19	1	17,846	9,037	2,314	152	
ADUR, . . . . .	888	4,628	432	-	8	-	-	6,072	3,490	1,164	469	
ADUR, . . . . .	846	8,448	3	-	18	-	-	4,927	2,649	1,071	181	
ADUR, . . . . .	244	2,253	16	-	20	1	1	8,176	1,126	529	69	
ADUR, . . . . .	241	6,832	2,176	1	651	-	1	8,806	3,483	2,368	244	
ADUR, . . . . .	470	2,067	32	-	136	10	2	3,318	2,915	941	198	
ADUR, . . . . .	1,869	10,718	3,781	3	160	8	-	21,494	8,778	3,263	258	
ADUR, . . . . .	175	5,614	4	7	140	8	-	7,564	6,733	1,108	252	
ADUR, . . . . .	105	892	48	9	260	1	-	1,386	4,002	619	439	
ADUR, . . . . .	887	16,415	126	1	-	-	-	14,942	4,861	3,548	418	
ADUR, . . . . .	1,484	5,890	1,386	1	563	8	86	3,705	7,059	1,941	405	
ADUR, . . . . .	-	6,585	1	-	207	-	-	5,729	4,853	569	66	
ADUR, . . . . .	3	6,061	55	-	318	-	-	7,438	6,467	348	19	
ADUR, . . . . .	-	3,275	3	6	19	-	-	1,552	1,679	348	149	
ADUR, . . . . .	1,391	16,619	1,805	-	2	133	1	16,648	2,673	2,117	335	
ADUR, . . . . .	1,290	3,778	1,038	-	32	-	12	5,152	3,485	1,614	387	
ADUR, . . . . .	1	5,684	-	-	1	-	-	5,697	3,478	1,289	1	



CEREAL CROPS IN THE YEAR 1888, THE VALUATION IN 1886, AND THE POPULATION IN 1881.

IN STATUTE ACRES.

County or Parish.	CEREAL CROPS.						ESTIMATED FOR THE YEAR.				Population in 1881.	FOODWORTHY CROPS.
	Oats.	Wheat.	Barley.	Other Cereals.	Straw.	Pro.	Wheat, Barley, &c. (in Statute Acres).	Permanent Pasture (in Statute Acres).	Total Arable Land (in Acres).	Value in 1886.		
1	20	215	30	30	48	6,200	6,127	11,217	41,220	85,201	21,769	ABERDEEN.
2	9	15	247	19	120	18,073	11,441	10,591	48,189	125,990	87,734	ABERDEEN.
3	25	201	36	36	240	7,791	6,481	8,158	30,292	54,422	19,796	ABERDEEN.
4	16	87	249	25	356	17,397	12,466	10,468	78,240	200,530	86,883	ABERDEEN.
5	11	208	20	467	384	4,194	1,892	14,163	32,655	36,867	32,827	ABERDEEN.
6	205	109	156	266	14,775	11,750	12,560	14,400	40,600	111,182	37,961	ABERDEEN.
7	2	89	18	21	217	4,486	8,791	4,323	28,796	43,375	18,715	ABERDEEN.
8	4	585	48	5	154	8,546	1,229	4,800	22,147	48,980	34,770	ABERDEEN.
9	1	244	18	440	72	6,408	1,227	10,962	20,669	74,981	10,000	ABERDEEN.
10	15	148	11	163	160	7,364	2,465	6,273	35,446	69,676	35,120	ABERDEEN.
11	1	28	38	2	52	3,928	1,693	1,800	22,000	41,684	18,735	ABERDEEN.
12	1	81	84	50	113	4,915	8	2,546	20,001	41,375	17,466	ABERDEEN.
13	1	36	41	1	136	12,902	6,040	11,472	130,027	67,754	10,488	ABERDEEN.
14	1	14	82	3	33	13,300	5,165	6,946	45,485	85,194	30,645	ABERDEEN.
15	1	216	7	11	254	3,848	189	3,659	55,867	80,805	35,515	ABERDEEN.
16	1	60	2	9	7	1,677	1	490	1,328	10,842	5,554	ABERDEEN.
17	202	80	41	24	202	3,279	3,004	10,467	30,292	80,708	10,567	ABERDEEN.
18	24	320	28	3	139	8,608	4,077	10,573	37,800	75,007	25,486	ABERDEEN.
19	41	114	46	14	65	6,514	10,309	8,594	41,179	130,327	45,662	ABERDEEN.
20	1	180	20	14	120	4,988	755	4,737	22,966	32,187	16,229	ABERDEEN.
21	7	344	19	4	141	5,592	514	12,644	25,444	75,498	10,567	ABERDEEN.
22	18	118	105	2	460	4,904	8,802	7,114	15,475	54,358	20,380	ABERDEEN.
23	1	127	1	1	1	4,297	146	1,600	9,374	16,879	16,431	ABERDEEN.
24	29	179	42	117	92	6,740	2,440	3,201	53,718	61,719	10,600	ABERDEEN.
25	7	507	14	7	183	3,229	1	608	18,493	88,690	74,396	ABERDEEN.
26	2	597	4	21	135	4,567	213	5,879	20,000	39,397	10,511	ABERDEEN.
27	22	320	13	1	81	4,085	4,086	12,807	18,000	75,000	15,435	ABERDEEN.
28	141	580	29	26	201	12,330	18,819	20,807	65,941	190,504	41,720	ABERDEEN.
29	9	79	17	1	30	4,904	1,638	973	30,603	56,477	10,477	ABERDEEN.
30	1	208	2	1	51	3,799	7	18,470	25,671	46,308	20,851	ABERDEEN.
31	24	422	60	1	254	4,468	2,396	1,748	11,286	75,708	20,000	ABERDEEN.
32	60	469	27	7	126	8,661	8,661	15,971	17,518	35,000	10,000	ABERDEEN.
33	5	367	36	37	90	7,857	2,142	7,118	22,987	46,654	22,272	ABERDEEN.
34	30	109	6	1	119	8,737	1,807	2,684	42,608	75,000	35,882	ABERDEEN.
35	254	2	1	1	49	4,054	1,413	18,800	50,226	32,466	13,611	ABERDEEN.
36	2	82	1	1	50	4,545	5,644	5,644	15,640	26,448	13,488	ABERDEEN.
37	5	434	9	49	462	10,661	814	16,690	27,608	50,442	10,000	ABERDEEN.
38	24	426	22	27	713	13,645	1,481	4,727	20,200	36,700	114,200	ABERDEEN.
39	21	68	15	4	152	9,436	2,046	13,637	58,717	114,850	70,000	ABERDEEN.
40	6	434	44	17	126	3,709	2,015	5,040	30,292	45,455	11,298	ABERDEEN.
41	2	118	2	1	126	4,609	221	2,541	5,711	17,483	14,300	ABERDEEN.
42	4	450	30	3	126	6,658	4,077	4,838	20,130	35,419	10,000	ABERDEEN.
43	3	21	19	1	797	7,471	1,042	4,696	6,032	32,264	35,167	ABERDEEN.
44	81	80	20	18	456	7,167	2,323	4,288	26,402	30,688	25,546	ABERDEEN.
45	1	206	27	20	311	5,437	1,368	3,768	24,675	37,417	20,000	ABERDEEN.
46	27	296	25	5	126	8,667	2,328	4,434	17,073	71,060	25,000	ABERDEEN.
47	20	48	78	47	11,486	4,084	4,084	4,084	16,678	16,678	10,000	ABERDEEN.
48	23	114	46	17	579	10,714	2,701	6,962	2,843	48,860	85,415	ABERDEEN.
49	5	261	40	60	260	6,000	5,717	7,308	7,485	44,671	29,181	ABERDEEN.
50	84	615	332	13	130	14,472	8,873	10,280	36,665	246,178	145,014	ABERDEEN.
51	24	123	8	9	18	1,915	607	4,444	7,792	30,347	8,000	ABERDEEN.
52	14	181	17	4	85	5,585	1,791	10,419	26,800	85,410	14,000	ABERDEEN.
53	14	170	18	10	78	8,528	1,943	7,511	17,302	82,894	10,462	ABERDEEN.
54	4	280	3	12	20	4,233	371	4,700	13,308	22,680	39,142	ABERDEEN.
55	1	174	1	1	130	8,870	294	12,906	22,444	24,425	25,318	ABERDEEN.
56	25	89	225	17	126	21,000	10,120	2,364	75,400	176,004	43,100	ABERDEEN.
57	36	60	26	8	862	4,696	2,693	10,440	34,774	125,000	82,000	ABERDEEN.
58	8	125	15	2	120	8,199	1,819	8,384	15,308	36,367	17,345	ABERDEEN.
59	22	484	16	7	426	3,700	5,602	6,991	16,347	404,589	125,000	ABERDEEN.
60	7	452	9	1	427	8,364	1,818	8,364	15,187	895,881	202,364	ABERDEEN.
61	10	322	102	10	304	14,100	6,279	8,064	48,800	208,467	12,300	ABERDEEN.
62	2	152	92	1	44	4,545	826	804	11,417	11,469	19,721	ABERDEEN.
63	27	49	20	4	360	11,679	4,300	6,138	6,882	48,828	46,513	ABERDEEN.
64	36	432	1	1	199	8,000	2,147	2,147	17,690	55,384	25,198	ABERDEEN.
65	2	207	114	81	41	4,307	2,020	5,037	15,543	35,408	17,428	ABERDEEN.
66	11	29	4	1	30	1,967	1,101	16,796	25,042	185,786	10,562	ABERDEEN.
67	40	107	18	870	107	7,165	4,088	10,945	40,790	45,447	16,774	ABERDEEN.
68	20	229	9	1	135	4,527	1,180	11,180	36,187	74,020	24,826	ABERDEEN.
69	40	791	27	1	183	18,600	13,284	8,600	11,000	11,000	87,100	ABERDEEN.
70	29	726	1	1	137	8,520	1,303	9,749	49,190	107,342	40,000	ABERDEEN.
71	20	306	1	1	139	5,572	585	8,939	24,108	30,891	22,708	ABERDEEN.
72	40	408	63	24	181	8,373	2,260	8,313	48,101	100,792	25,000	ABERDEEN.
73	7	307	38	970	181	18,300	1,930	5,325	20,181	65,982	45,100	ABERDEEN.
74	1	100	11	185	74	8,007	8,007	15,744	21,718	21,718	15,874	ABERDEEN.
75	1	286	2	1	70	2,366	1,923	15,676	20,468	30,461	10,000	ABERDEEN.
76	19	201	28	6	164	8,637	913	9,440	14,024	26,432	14,162	ABERDEEN.
77	3	219	56	124	41	3,828	1,807	7,093	16,447	48,112	10,072	ABERDEEN.
78	1	186	16	3	4	4,393	1,188	1,701	10,740	16,485	14,375	ABERDEEN.



TABLE 7.—SHOWING, BY POSS LAW UNDER, THE EXTENT OF LAKE

TOWN OR VILLAGE.	CATTLE, HORSES, AND PIGS.								EXTENT UNDER CROPS.			
	Wheat.	Oats.	Rye.	Barley.	Hay.	Straw.	Timothy.	Other.	Wheat.	Oats.	Barley.	Other.
ALBANY, . . . . .	0	8,335	7	1	40	1	1	5,481	5,137	1,234	281	
ALBANY, . . . . .	18	14,617	103	18	221	2	1	15,197	7,548	3,907	117	
ALBANY, . . . . .	311	8,437	13	4	291	8	2	6,507	8,711	240	148	
ALBANY, . . . . .	1,138	8,265	18	1	34	1	1	5,215	4,224	1,334	122	
ALBANY, . . . . .	30	6,420	15	1	39	1	1	4,486	3,470	370	220	
ALBANY, . . . . .	8	2,108	4	1	29	1	1	2,136	8,227	440	29	
ALBANY, . . . . .	222	5,672	29	1	2	1	1	7,520	4,614	1,588	171	
ALBANY, . . . . .	2,730	8,482	4,481	1	8	1	1	13,634	8,384	1,985	222	
ALBANY, . . . . .	435	419	5	1	54	1	1	1,238	1,210	585	224	
ALBANY, . . . . .	8	2,620	211	1	8	1	1	2,643	2,370	535	43	
ALBANY, . . . . .	554	8,888	45	1	80	1	1	6,134	5,170	880	115	
ALBANY, . . . . .	123	8,742	183	1	1	1	1	2,978	1,540	722	223	
ALBANY, . . . . .	824	8,182	36	1	1	1	1	2,809	4,106	441	225	
ALBANY, . . . . .	429	2,620	37	1	280	10	1	3,028	3,870	535	225	
ALBANY, . . . . .	551	8,774	2,468	1	8	1	1	8,308	6,150	1,022	733	
ALBANY, . . . . .	743	7,855	29	1	8	772	1	8,248	8,382	554	29	
ALBANY, . . . . .	1	10,607	1	1	417	298	1	13,822	2,330	2,633	39	
ALBANY, . . . . .	163	20,200	400	1	81	1	1	23,846	7,594	4,710	49	
ALBANY, . . . . .	227	8,202	422	1	81	1	1	8,863	5,354	1,382	522	
ALBANY, . . . . .	1,443	10,222	54	1	20	220	12	26,820	10,694	8,635	245	
ALBANY, . . . . .	320	7,553	45	1	54	1	1	7,882	8,512	1,828	540	
ALBANY, . . . . .	415	4,628	8	1	67	2	1	5,126	4,267	612	160	
ALBANY, . . . . .	143	8,000	384	9	270	104	13	9,373	5,491	280	530	
ALBANY, . . . . .	15	20,400	1	1	178	8	2	20,400	8,686	7,320	119	
ALBANY, . . . . .	171	4,819	84	8	178	8	2	5,284	4,106	757	164	
ALBANY, . . . . .	478	4,709	40	4	34	1	1	5,323	4,106	1,822	281	
ALBANY, . . . . .	2,844	11,821	340	6	106	118	11	14,599	5,245	1,610	220	
ALBANY, . . . . .	480	7,283	15	1	74	1	1	7,449	8,841	1,241	283	
ALBANY, . . . . .	1,082	20,467	22	7	114	2	2	21,264	12,702	1,022	38	
ALBANY, . . . . .	1,311	8,773	17	1	30	1	1	9,528	4,222	1,311	286	
ALBANY, . . . . .	34	8,123	1	1	103	1	1	3,203	3,320	535	154	
ALBANY, . . . . .	884	1,091	7,292	7	1	1	1	10,682	4,176	4,806	1,088	
ALBANY, . . . . .	2	10,402	271	10	70	4	137	12,042	5,412	2,416	164	
ALBANY, . . . . .	885	3,219	192	5	22	4	2	3,781	2,960	467	88	
ALBANY, . . . . .	437	4,724	13	1	8	1	1	4,268	3,743	831	55	
ALBANY, . . . . .	12	4,382	1	1	78	1	1	4,470	5,628	441	121	
ALBANY, . . . . .	326	10,585	14	1	34	22	4	10,133	7,388	2,625	870	
ALBANY, . . . . .	76	4,649	30	1	74	1	1	4,623	8,778	551	244	
ALBANY, . . . . .	119	18,167	10,230	7	30	1	1	20,011	7,366	5,874	637	
ALBANY, . . . . .	29	6,240	32	1	70	1	1	6,504	4,872	2,637	281	
ALBANY, . . . . .	290	8,808	1,545	11	374	1	1	12,482	3,300	3,358	522	
ALBANY, . . . . .	518	8,872	42	1	37	1	1	9,187	1,852	1,753	125	
ALBANY, . . . . .	129	7,494	1,264	27	8	1	1	9,256	5,971	3,254	474	
ALBANY, . . . . .	873	9,417	18	1	1	1	1	4,466	4,380	534	224	
New York, . . . . .	1,470	18,686	11,564	4	11	14	8	29,141	7,744	7,185	620	
ALBANY, . . . . .	714	21,348	80	1	4	1	1	23,021	12,208	2,451	87	
ALBANY, . . . . .	3,294	18,219	60	2	35	418	22	27,554	7,554	4,357	259	
ALBANY, . . . . .	10	7,303	21	1	7	1	1	7,143	4,681	1,221	118	
ALBANY, . . . . .	8	20,506	2	8	65	1	1	22,038	8,150	2,960	55	
ALBANY, . . . . .	486	2,254	621	1	10	1	1	3,013	8,201	370	115	
ALBANY, . . . . .	253	3,158	7,320	18	280	1	2	11,168	6,926	4,668	569	
ALBANY, . . . . .	620	2,402	361	4	31	1	1	3,418	3,344	551	227	
ALBANY, . . . . .	481	2,241	96	1	1	1	1	2,289	1,495	1,495	227	
ALBANY, . . . . .	602	9,987	563	1	2	1	1	11,876	4,232	2,421	263	
ALBANY, . . . . .	2,054	8,157	245	1	4	1	1	9,461	2,682	2,682	263	
ALBANY, . . . . .	140	3,327	12	1	220	1	1	3,618	8,486	266	148	
ALBANY, . . . . .	146	4,788	3,328	25	34	1	1	5,492	4,326	3,642	487	
ALBANY, . . . . .	1,631	1,631	38	1	135	1	1	2,118	5,264	1,147	184	
ALBANY, . . . . .	112	4,566	27	1	1	1	1	13,249	2,253	2,253	268	
ALBANY, . . . . .	1,180	4,686	27	2	26	1	1	3,390	3,157	1,587	451	
ALBANY, . . . . .	812	1,620	74	1	15	1	1	1,973	2,617	377	128	
ALBANY, . . . . .	599	5,708	17	1	224	1	1	6,130	6,184	1,690	434	
ALBANY, . . . . .	373	27,946	30	1	3	1	1	26,110	7,424	6,789	245	
ALBANY, . . . . .	89	3,696	3	1	1	1	1	1,974	4,985	1,735	35	
ALBANY, . . . . .	166	3,660	3	1	893	1	1	4,354	4,924	637	144	
ALBANY, . . . . .	7	12,827	44	1	281	1	1	13,478	11,788	7,784	23	
ALBANY, . . . . .	1,263	8,923	4,632	1	8	1	1	14,227	9,847	2,345	266	
ALBANY, . . . . .	144	8,923	4,632	1	8	1	1	12,030	9,380	8,072	264	
ALBANY, . . . . .	812	3,124	60	1	15	1	1	6,671	4,054	1,234	273	
ALBANY, . . . . .	17	1,987	24	1	80	1	1	4,535	8,261	542	45	
ALBANY, . . . . .	810	8,229	1,222	8	129	1	1	7,881	8,289	1,599	729	
ALBANY, . . . . .	489	5,993	23	4	103	1	1	6,734	2,254	2,622	265	
ALBANY, . . . . .	1,259	9,570	113	1	818	1	1	11,120	5,266	2,649	244	
ALBANY, . . . . .	178	2,188	13	3	220	1	1	2,622	2,445	617	251	
ALBANY, . . . . .	78	9,417	6,122	8	119	1	1	10,043	4,322	3,746	729	
ALBANY, . . . . .	485	4,900	1,908	1	1	1	1	7,074	2,818	2,253	143	
ALBANY, . . . . .	1,054	5,390	321	1	1	1	1	11,284	4,978	2,134	1,022	
ALBANY, . . . . .	48	5,914	124	1	1,023	1	1	7,438	7,628	727	1,022	
ALBANY, . . . . .	1,220	12,184	5,170	4	25	1,650	1	22,287	5,204	4,159	861	
ALBANY, . . . . .	945	6,283	3,594	1	1	1	1	9,794	2,316	1,705	861	
Total, . . . . .	55,612	1,280,318	270,729	340	10,548	8,890	730	1,271,448	804,605	294,237	45,745	



ENTER CROPS IN THE YEAR 1888, THE VARIATION IN 1886, AND THE POPULATION IN 1881—continued.

IN STATUTE ACRES.

IN STATUTE ACRES.												FOUR LAW UNIONS.		
Crops in 1888.						Crops in 1886.						Value in 1888.	Population in 1881.	
Arable.	Grass.	Woods.	Heath.	Other Uses.	Total.	Arable.	Grass.	Woods.	Heath.	Other Uses.	Total.			
Arable.	Grass.	Woods.	Heath.	Other Uses.	Total.	Arable.	Grass.	Woods.	Heath.	Other Uses.	Total.	Value in 1888.	Population in 1881.	
1	403	17	4	271	0,207	40	2,007	16,735	36,543	85,656	51,373	GRANBY.		
2	317	334	9	130	11,465	108	2,699	22,641	32,998	36,953	33,664	GRANBY.		
3	78	7	4	160	4,467	1,002	2,861	2,584	25,476	43,171	17,560	GRANBY.		
10	435	104	20	271	7,131	573	2,725	26,267	43,247	77,522	36,564	GRANBY.		
41	130	15	20	264	6,067	61	2,934	13,618	26,364	26,567	13,663	GRANBY.		
11	679	16	05	70	4,610	1	351	6,626	15,677	16,565	35,750	GRANBY.		
12	94	26	27	139	5,000	1,434	4,103	5,600	14,213	44,213	18,077	GRANBY.		
3	315	02	3	504	8,653	1	5,642	14,703	89,915	89,915	26,743	GRANBY.		
4	117	7	9	72	2,677	8	67	6,963	25,563	25,563	11,019	GRANBY.		
1	75	23	1	12	5,294	9	544	3,953	10,203	30,409	14,186	GRANBY.		
4	940	40	20	280	5,210	7	1,471	22,122	20,410	76,400	44,655	GRANBY.		
11	179	34	0	31	9,913	1	1,745	1,060	9,690	33,332	20,739	GRANBY.		
18	844	10	1	65	5,372	1	875	27,641	37,606	135,578	82,610	GRANBY.		
6	207	11	5	177	7,720	10	135	39,403	40,222	82,804	25,695	GRANBY.		
20	46	73	24	38	5,165	1	3,693	5,719	21,022	36,344	17,589	GRANBY.		
6	36	80	1	131	6,406	218	7,329	6,017	61,794	102,203	62,558	GRANBY.		
30	317	30	0	110	6,138	2,400	2,687	1,431	20,569	35,578	16,271	GRANBY.		
103	86	110	00	237	22,586	0,11	0,280	9,709	43,407	59,404	26,231	GRANBY.		
40	434	21	00	560	6,201	1	9,401	20,663	47,719	107,794	70,651	GRANBY.		
103	726	690	37	840	14,174	2,746	14,182	7,392	62,260	176,144	40,416	GRANBY.		
21	364	16	1	60	5,308	1	5,044	26,636	30,316	17,264	17,264	GRANBY.		
6	78	41	10	140	5,479	1,064	1,687	22,225	20,735	30,800	26,614	GRANBY.		
23	874	0	40	09	7,094	3	1,066	20,406	30,414	30,800	24,476	GRANBY.		
10	648	170	6	270	10,508	2,614	9,037	1,646	60,254	143,606	36,411	GRANBY.		
10	353	10	22	107	9,018	21	2,484	15,025	20,260	60,618	26,614	GRANBY.		
6	503	8	571	102	7,708	0	784	17,692	30,212	76,308	50,525	GRANBY.		
10	70	303	10	231	10,292	244	8,963	4,800	14,500	145,507	60,600	GRANBY.		
10	303	473	30	48	8,913	3	5,400	10,400	30,600	25,500	20,400	GRANBY.		
10	368	36	30	850	11,401	3,035	6,545	8,004	60,180	32,477	27,711	GRANBY.		
30	513	128	7	114	7,694	1	8,063	15,300	37,060	165,000	27,000	GRANBY.		
5	698	11	4	80	6,706	71	591	15,365	27,269	43,020	28,135	GRANBY.		
21	151	164	0	10	10,964	1,400	4,700	11,500	41,000	34,300	27,525	GRANBY.		
10	840	1	3	129	8,841	1,062	1,180	1,180	20,000	25,000	25,001	GRANBY.		
10	259	74	34	12	3,309	0	865	7,209	15,203	28,025	12,011	GRANBY.		
35	333	8	110	49	4,179	1	1,066	2,201	30,267	40,164	16,764	GRANBY.		
6	527	0	11	120	5,420	31	708	72,441	54,102	35,088	26,363	GRANBY.		
10	144	01	16	855	16,636	4,057	6,617	4,709	44,451	22,000	20,517	GRANBY.		
70	172	64	32	50	5,400	1	8,004	20,388	40,410	17,911	17,911	GRANBY.		
27	206	20	30	194	14,699	1	2,454	12,709	10,007	64,000	64,000	GRANBY.		
43	240	10	143	283	2,791	1	3,200	20,000	42,100	138,418	68,463	GRANBY.		
55	301	22	25	167	8,130	1	8,130	24,463	24,100	143,186	68,000	GRANBY.		
10	46	0	102	102	5,112	1	2,177	1,400	39,802	56,138	17,801	GRANBY.		
10	400	60	3	59	10,170	1	4,611	22,651	18,771	34,274	30,000	GRANBY.		
15	639	47	60	43	6,216	0	737	24,346	26,577	60,127	35,356	GRANBY.		
10	705	10	5	220	16,780	1	16,204	4,778	71,006	104,031	37,300	GRANBY.		
6	720	20	4	276	14,474	3,767	14,006	9,865	61,748	150,380	67,732	GRANBY.		
10	120	643	20	807	16,356	2,054	25,058	1,115	44,141	141,000	47,001	GRANBY.		
12	7	1	1	4	141	1	2,900	8,001	75,129	40,801	20,100	GRANBY.		
7	53	60	32	267	13,070	6,400	6,702	6,301	44,814	65,172	48,766	GRANBY.		
10	10	1	1	21	2,740	5	267	1,011	9,803	14,007	22,765	GRANBY.		
10	284	0	104	211	12,500	1	6,640	17,009	20,000	160,000	68,000	GRANBY.		
10	287	0	109	30	8,943	1	901	5,726	17,463	35,356	11,210	GRANBY.		
14	47	30	47	741	2,913	1	2,907	7,004	16,135	27,000	27,000	GRANBY.		
13	135	20	12	135	7,267	1	8,000	14,000	41,501	120,500	26,603	GRANBY.		
32	172	2	1	40	4,177	1	2,984	4,007	51,020	60,501	35,124	GRANBY.		
6	170	1	140	80	3,614	1	1,007	12,100	21,749	54,416	30,000	GRANBY.		
30	260	10	00	201	8,000	1	8,407	12,801	20,041	11,400	11,700	GRANBY.		
4	140	0	30	80	6,700	1	801	3,170	11,000	20,000	13,000	GRANBY.		
32	360	2	10	87	6,530	1	6,000	2,000	22,001	30,500	15,000	GRANBY.		
32	453	00	00	171	5,334	1	2,073	8,171	20,360	60,000	32,000	GRANBY.		
6	120	00	7	85	2,701	1	630	2,100	7,444	16,000	22,500	GRANBY.		
10	480	0	1	221	6,000	0	2,011	15,000	20,000	30,000	43,000	GRANBY.		
10	203	68	0	116	14,211	0,002	5,007	1,761	60,100	100,304	47,000	GRANBY.		
3	115	90	1	141	6,117	2,440	1,001	4,000	20,000	35,100	17,400	GRANBY.		
4	166	0	8	180	6,000	1	716	12,000	22,001	20,000	20,704	GRANBY.		
1	512	41	33	73	10,171	1	1,000	4,300	22,000	40,000	35,714	GRANBY.		
10	320	00	4	84	8,449	1	6,573	4,000	30,320	50,143	16,700	GRANBY.		
17	430	22	15	120	0,007	1	4,000	12,700	46,000	36,504	25,001	GRANBY.		
35	626	14	1	100	6,465	1	1,000	10,400	41,703	147,704	41,000	GRANBY.		
4	243	1	8	210	6,000	1	826	8,000	20,000	40,000	22,701	GRANBY.		
10	512	41	33	73	10,171	1	1,000	4,300	22,000	40,000	35,714	GRANBY.		
10	320	00	4	84	8,449	1	6,573	4,000	30,320	50,143	16,700	GRANBY.		
10	430	22	15	120	0,007	1	4,000	12,700	46,000	36,504	25,001	GRANBY.		
10	626	14	1	100	6,465	1	1,000	10,400	41,703	147,704	41,000	GRANBY.		
10	243	1	8	210	6,000	1	826	8,000	20,000	40,000	22,701	GRANBY.		
10	512	41	33	73	10,171	1	1,000	4,300	22,000	40,000	35,714	GRANBY.		
10	320	00	4	84	8,449	1	6,573	4,000	30,320	50,143	16,700	GRANBY.		
10	430	22	15	120	0,007	1	4,000	12,700	46,000	36,504	25,001	GRANBY.		
10	626	14	1	100	6,465	1	1,000	10,400	41,703	147,704	41,000	GRANBY.		
10	243	1	8	210	6,000	1	826	8,000	20,000	40,000	22,701	GRANBY.		
10	512	41	33	73	10,171	1	1,000	4,300	22,000	40,000	35,714	GRANBY.		
10	320	00	4	84	8,449	1	6,573	4,000	30,320	50,143	16,700	GRANBY.		
10	430	22	15	120	0,007	1	4,000	12,700	46,000	36,504	25,001	GRANBY.		
10	626	14	1	100	6,465	1	1,000	10,400	41,703	147,704	41,000	GRANBY.		
10	243	1	8	210	6,000	1	826	8,000	20,000	40,000	22,701	GRANBY.		
10	512	41	33	73	10,171	1	1,000	4,300	22,000	40,000	35,714	GRANBY.		
10	320	00	4	84	8,449	1	6,573	4,000	30,320	50,143	16,700	GRANBY.		
10	430	22	15	120	0,007	1	4,000	12,700	46,000	36,504	25,001	GRANBY.		
10	626	14	1	100	6,465	1	1,000	10,400	41,703	147,704	41,000	GRANBY.		
10	243	1	8	210	6,000	1	826	8,000	20,000	40,000	22,701	GRANBY.		
10	512	41	33	73	10,171	1	1,000	4,300	22,000	40,000	35,714	GRANBY.		
10	320	00	4	84	8,449	1	6,573	4,000	30,320					



TABLE 8.—SHOWING, BY POOR LAW UNIONS, THE

POOR LAW UNIONS.	PRODUCE						
	CORN, GRAIN, AND FRUIT.						
	Wheat.	Oats.	Barley.	Rye.	Rye.	Peas.	Beans.
	Cwt. of 112 lbs.	Cwt. of 112 lbs.	Cwt. of 112 lbs.	Cwt. of 112 lbs.	Cwt. of 112 lbs.	Cwt. of 112 lbs.	Cwt. of 112 lbs.
ARMISTEAD, . . . . .	2,512	116,777	120,264	20	110	15	
ARMISTEAD, . . . . .	7,772	225,543	303		415	5,283	243
ARMISTEAD, . . . . .	5,552	122,580	51,127	10	80	914	212
ARMISTEAD, . . . . .	50,110	350,000	127	14	628	1,794	24
ARMISTEAD, . . . . .	1,137	81,380	409	20	3,805		
ARMISTEAD, . . . . .	18,110	160,864	227,613	20	1,118		
BALDWIN, . . . . .	175	40,250			2		
BALDWIN, . . . . .	505	68,813	1,179	10	1,918		100
BALDWIN, . . . . .	1,173	88,720	4,941		1,426	16	22
BALDWIN, . . . . .	51,920	90,962	1,407	51	1,802		24
BALDWIN, . . . . .	120	117,403	7,718	21	8	7,903	450
BALDWIN, . . . . .	2,803	62,510	128	21	904	12	23
BALDWIN, . . . . .	1,843	326,200	24		30	147	30
BALDWIN, . . . . .	303	828,311	181		100		
BALDWIN, . . . . .	1,668	45,321	65	25	3,468	603	13
BALDWIN, . . . . .	1,222	3,109	8,898		72	204	
BALDWIN, . . . . .	25,774	107,400	20,512		1,413		113
BALDWIN, . . . . .	1,444	20,704	3,704				
BALDWIN, . . . . .	36,120	217,307	80	117	190	199	48
BALDWIN, . . . . .	4,808	46,748	18,620		103		12
BALDWIN, . . . . .	7,307	25,858	48		20	16	
BALDWIN, . . . . .	1-4	62,143			427		
BALDWIN, . . . . .	4-28	24,018	121		20	129	
BALDWIN, . . . . .		45,941	5,127	11	3,754		
BALDWIN, . . . . .	5,363	40,803	90,000		432		18
BALDWIN, . . . . .	1,833	74,268	407		2,800		
BALDWIN, . . . . .		41,072	14	24	300		
BALDWIN, . . . . .	36,777	72,065	12,684				
BALDWIN, . . . . .	27,285	292,443	74,141		280		
BALDWIN, . . . . .	7,367	87,450	18,320	18	21		
BALDWIN, . . . . .	125	81,014	11	26	1,406		
BALDWIN, . . . . .	18,113	85,368	702	24			
BALDWIN, . . . . .	25,080	102,016	22,102	14	188	81	11
BALDWIN, . . . . .	3,086	50,024	1,863	71	1,833		
BALDWIN, . . . . .		180,348	519				
BALDWIN, . . . . .	5,380	32,864	14,457		33		
BALDWIN, . . . . .	110	82,880	22		179		
BALDWIN, . . . . .	250	180,718	86		4,894	48	
BALDWIN, . . . . .	470	11,253	106		65	16	
BALDWIN, . . . . .	5,381	115,084	44	20	897	20	18
BALDWIN, . . . . .	17,088	60,305	3,879		23	40	471
BALDWIN, . . . . .	171	120,071	614	71	4,517	20	
BALDWIN, . . . . .		24,301	3,579	27	8,250		12
BALDWIN, . . . . .	34,728	88,073	217		168		
BALDWIN, . . . . .	1,835	146,717	129	8	204	11	10
BALDWIN, . . . . .	18,300	85,454	80,580		108		
BALDWIN, . . . . .	4,450	80,000	49	21	1,102	187	80
BALDWIN, . . . . .	14,482	81,560	707	20	28	25	83
BALDWIN, . . . . .	550	365,294	18,411		140	1,632	73
BALDWIN, . . . . .	21,414	102,021	630	123	2,819	160	11
BALDWIN, . . . . .	218	148,800	103		150	90	18
BALDWIN, . . . . .	7,309	227,000	20,718	208	470	80	26
BALDWIN, . . . . .	4,588	12,019	848	26	790		
BALDWIN, . . . . .	17,013	28,841	8,714		10	18	
BALDWIN, . . . . .	214	80,787	80	78	837		
BALDWIN, . . . . .	305	28,740	1,831	144	2,486		
BALDWIN, . . . . .	650	48,317	1,000	28	1,450		
BALDWIN, . . . . .	67,507	202,810	414	11	3,503	297	
BALDWIN, . . . . .	5,062	118,307	50,386	13	80	1,470	613
BALDWIN, . . . . .	318	28,606	6,487		602	340	30
BALDWIN, . . . . .	20,081	84,361	8,818		144		1,005
BALDWIN, . . . . .	13,000	81,011	810			370	34
BALDWIN, . . . . .	4,667	180,704	112,223		240	498	342
BALDWIN, . . . . .	227	26,302	3,123	69	1,434		26
BALDWIN, . . . . .	4,260	102,813	45		1,066	225	10
BALDWIN, . . . . .	5,513	88,421	8,894		81		
BALDWIN, . . . . .	18,041	45,172	45		113		
BALDWIN, . . . . .	5,043	47,117	280		288	16	13
BALDWIN, . . . . .	5,413	116,617	32,826	22	3,586		12
BALDWIN, . . . . .	7,002	38,021	484	20	1,074	189	30
BALDWIN, . . . . .	23,708	354,785	133,401		1,074	75	
BALDWIN, . . . . .	2,579	95,130	84	24	1,634	46	12
BALDWIN, . . . . .	1,802	12,494	3,090	103	2,543	23	10
BALDWIN, . . . . .	12,778	168,580	1,439		12		
BALDWIN, . . . . .	18,080	71,403	14,888	11	6,802	80	618
BALDWIN, . . . . .	20	39,412	120	12	3,640		
BALDWIN, . . . . .	163	60,000	4,222		5,892		
BALDWIN, . . . . .	5,128	14,024	28	24	228		
BALDWIN, . . . . .	16,708	187,412	24,826		24	1,727	70
BALDWIN, . . . . .	17,002	81,014	13,404		270		298
BALDWIN, . . . . .	18	84,80			10	18	



PRODUCT OF THE CROPS IN THE YEAR 1888.

OF THE CROPS.

OF THE CROPS.		CEREAL CROPS.										HAY		FOOD LAW THIRDS.
Yields.	Yields.	Yields and Stock.	Yields and Stock.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.		
Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.	Yields.		
29,300	42,880	5,730	510	1,135	266	815		27,415	27,415			ARROWROOT.		
29,161	15,632	265	84	154	6,292	56	77,074	26,696	26,696			ARTICH.		
29,219	45,686	5,375	202	1,780	255	40	159	44,724	10,539			ARISE.		
29,219	48,962	5,375	202	1,780	255	40	159	44,724	10,539			ARISE.		
29,219	48,962	5,375	202	1,780	255	40	159	44,724	10,539			ARISE.		
16,765	161,461	15,215	517	2,961	637	666		25,336	20,382			AVO.		
6,044	6,009	236	7	748	28	147	41,843	8,103	11,232			BACCHUSMOR.		
14,718	14,717	2,136	24	2,616	267	20	262	2,661	20,673			BALM.		
11,666	26,278	4,074	45	5,537	77	2,465		2,664	22,264			BALMOR.		
27,269	25,775	3,999	96	1,312	63	565		3,969	13,461			BALMOR.		
11,214	11,666	129	15	209	173	16	36,666	6,795	2,795			BALMOR.		
10,295	15,180	2,121	79	1,600	512	144	240	6,654	25,067			BALMOR.		
44,834	7,061	361	64	104	256	2	204,267	25,115	19,115			BALMOR.		
40,759	20,991	644	85	100	268	1	127,443	15,282	5,425			BALMOR.		
6,739	6,731	8,065	144	4,657	26	63		1,317	25,027			BALMOR.		
5,967	2,621	2,666	4	585	17	30	30	819	2,640			BALMOR.		
17,172	10,167	2,606	1,023	204	427	164		15,175	22,532			BALMOR.		
5,960	15,719	5,351	175	1,263	545	15		4,436	16,527			BALMOR.		
26,545	26,164	1,282	32	163	1,064	264	164,269	26,546	8,279			BALMOR.		
11,271	26,460	9,685	462	1,373	413	114		10,737	4,784			BALMOR.		
7,611	2,632	2,365	20	1,463	239	24		2,662	2,364			BALMOR.		
14,566	8,562	814	63	3,039	80	120	120	1,466	22,532			BALMOR.		
7,126	11,769	1,069	66	1,134	1,665	17	8,663	5,670	21,265			BALMOR.		
12,276	8,566			1,164				347	6,029			BALMOR.		
11,269	41,415	1,065	362	1,761	465	365		5,636	14,764			BALMOR.		
26,162	2,661	2,417	36	3,162	63	23	23	2,266	20,661			BALMOR.		
14,664	5,965	2,647	12	2,739	21	143	34	216	14,445			BALMOR.		
8,741	16,515	2,166	124	2,361	61			6,417	22,126			BALMOR.		
33,137	64,136	4,400	1,191	4,438	264	216		20,816	66,666			BALMOR.		
14,714	16,511	455	72	645	137	10	30,269	10,736	2,066			BALMOR.		
16,176	4,339	1,011	10	2,445	29			47,266	47,266			BALMOR.		
5,961	17,664	6,617	275	2,764	248	6		8,465	15,266			BALMOR.		
16,566	41,626	5,431	436	3,660	132			11,736	28,744			BALMOR.		
26,666	16,769	1,671	66	2,666	265	262	2,247	2,665	15,111			BALMOR.		
16,165	14,976	661	163	601	71	7	107,641	15,663	8,666			BALMOR.		
5,536	7,625	1,066	164	8,625	15			8,542	26,421			BALMOR.		
7,764	5,166	64	254	124	13		47,666	5,747	6,064			BALMOR.		
24,364	13,777	2,025	16	5,645	6	126		2,026	42,813			BALMOR.		
4,174	1,351	568	50	1,666		5		326	7,466			BALMOR.		
24,364	8,233	6,133	141	4,366	105	227	40,176	22,433	73,661			BALMOR.		
6,464	15,667	4,376	260	679	29	29		8,765	26,463			BALMOR.		
24,765	19,467	1,676	63	8,711	361	113	16	6,765	14,721			BALMOR.		
15,666	16,666	964	18	116	14	7		536	6,674			BALMOR.		
12,624	16,664	4,776	446	4,462	261	31		8,262	12,667			BALMOR.		
15,666	15,764	1,269	19	447	127		66,161	16,447	26,269			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	773	436	166,166	66,266	6,661			BALMOR.		
16,634	12,747	1,766	66	676	666	116	100,666	16,676	20,267			BALMOR.		
16,626	26,269	5,665	793	639	114	34	1,160	4,836	5,734			BALMOR.		
11,265	4,775	1,469	46	445	163	126	20,262	5,719	21,262			BALMOR.		
5,722	11,673	2,661	876	3,765	342	56		6,664	20,267			BALMOR.		
26,269	54,166	564	84	676	7									



TABLE 3.—SHOWING, BY POOR LAW UNIONS, THE

POOR LAW UNIONS.	CEREALS, GRAIN, AND FEED.							PRODUCE	
	CEREALS, GRAIN, AND FEED.							Wheat.	Oats.
	Wheat.	Oats.	Barley.	Rye.	Spelt.	Maize.	Peas.		
	Qr. of 112 lbs.	Qr. of 112 lbs.	Qr. of 112 lbs.	Qr. of 112 lbs.	Qr. of 112 lbs.	Qr. of 112 lbs.	Qr. of 112 lbs.		
BRISTOL, . . . . .	170	118,511	100		870				
BIRMINGHAM, . . . . .	791	181,101	214,773	27	2,596				
BIRMINGHAM, . . . . .	1,712	80,208	790	83	2,617				
BIRMINGHAM, . . . . .	17,476	76,438	108	13	813				
BIRMINGHAM, . . . . .	209	82,733	790		281				
BIRMINGHAM, . . . . .	45	20,338	49		427				
BIRMINGHAM, . . . . .	11,822	27,179	7	11	55				
BIRMINGHAM, . . . . .	20,812	71,099	64,718		25				
BIRMINGHAM, . . . . .	6,139	11,846	10		0.9				
BIRMINGHAM, . . . . .	60	42,700	3,707		47				
BIRMINGHAM, . . . . .	3,495	81,611	637	19	509				
BIRMINGHAM, . . . . .	1,224	40,440	1,188						
BIRMINGHAM, . . . . .	0.5.0	40,410	708	16	70				
BIRMINGHAM, . . . . .	4,081	22,080	701	10	3,204				
BIRMINGHAM, . . . . .	11,000	79,031	86,480		72				
BIRMINGHAM, . . . . .	9,838	170,238	216	14	36				
BIRMINGHAM, . . . . .	1,148	808,489	1,896	13	4,740				
BIRMINGHAM, . . . . .	3,360	15,360	6,774		771				
BIRMINGHAM, . . . . .	36,700	2,0,040	710		445				
BIRMINGHAM, . . . . .	4,563	20,336	770		797				
BIRMINGHAM, . . . . .	4,761	70,225	71	72	225				
BIRMINGHAM, . . . . .	7,286	74,187	74,475	798	8,033				
BIRMINGHAM, . . . . .	501	67,146	9,132						
BIRMINGHAM, . . . . .	1,496	79,204	162	36	1,038				
BIRMINGHAM, . . . . .	5,567	77,428	518	42	402				
BIRMINGHAM, . . . . .	8,704	133,267	3,707	78	1,242				
BIRMINGHAM, . . . . .	14,302	24,707	254		116				
BIRMINGHAM, . . . . .	20,773	117,700	373	16	700				
BIRMINGHAM, . . . . .	261	87,869			1,119				
BIRMINGHAM, . . . . .	3,374	156,114	92,491	705	12				
BIRMINGHAM, . . . . .	5,663	180,825	3,711	140	767				
BIRMINGHAM, . . . . .	3,170	27,344	1,707	82	218				
BIRMINGHAM, . . . . .	3,170	27,344	163	14	89				
BIRMINGHAM, . . . . .	130	60,401	11	16	1,067				
BIRMINGHAM, . . . . .	22.4	10,405	16	20	919				
BIRMINGHAM, . . . . .	995	78,300	202		1,006				
BIRMINGHAM, . . . . .	1,083	187,955	164,728	70	205				
BIRMINGHAM, . . . . .	208	115,901	1,44		1,012				
BIRMINGHAM, . . . . .	23,207	129,700	20,053	178	4,402				
BIRMINGHAM, . . . . .	3,484	60,911	608		608				
BIRMINGHAM, . . . . .	5,473	119,713	24,201	347	125				
BIRMINGHAM, . . . . .	20,090	20,692	162		12				
BIRMINGHAM, . . . . .	26,514	208,678	20,571	40	131				
BIRMINGHAM, . . . . .	10,000	810,273	170		41				
BIRMINGHAM, . . . . .	44,714	21,540	0.7	80	403				
BIRMINGHAM, . . . . .	240	81,762	171	16	73				
BIRMINGHAM, . . . . .	30	27,470	20	60	669				
BIRMINGHAM, . . . . .	6,776	20,734	3,279		108				
BIRMINGHAM, . . . . .	6,796	118,618	107,368	206	4,718				
BIRMINGHAM, . . . . .	12,000	80,077	4,473	48	308				
BIRMINGHAM, . . . . .	6,985	42,407	1,808	99	20				
BIRMINGHAM, . . . . .	10,481	120,001	4,503		20				
BIRMINGHAM, . . . . .	20,828	87,116	3,242		26				
BIRMINGHAM, . . . . .	1,000	85,445	127		4,705				
BIRMINGHAM, . . . . .	2,040	84,579	63,661	491	1,012				
BIRMINGHAM, . . . . .	2,040	94,000	146		1,012				
BIRMINGHAM, . . . . .	1,841	120,073	4,075		10				
BIRMINGHAM, . . . . .	14,070	67,145	1,371	85	841				
BIRMINGHAM, . . . . .	6,587	10,566	705	14	100				
BIRMINGHAM, . . . . .	2,219	74,015	224		8,650				
BIRMINGHAM, . . . . .	4,507	80,004	744		10				
BIRMINGHAM, . . . . .	601	103,175	1,09		10				
BIRMINGHAM, . . . . .	1,860	84,779	25	18	4,613				
BIRMINGHAM, . . . . .	219	163,485	742	19	8,407				
BIRMINGHAM, . . . . .	21,584	180,049	63,465						
BIRMINGHAM, . . . . .	7,100	18,000	8,426	86	101				
BIRMINGHAM, . . . . .	12,474	80,004	1,426		80				
BIRMINGHAM, . . . . .	218	60,072	304		805				
BIRMINGHAM, . . . . .	10,287	55,313	22,040	30	1,013				
BIRMINGHAM, . . . . .	7,791	85,143	1,122	44	1,013				
BIRMINGHAM, . . . . .	11,606	121,374	1,718	17	2,207				
BIRMINGHAM, . . . . .	2,227	41,002	208	28	8,015				
BIRMINGHAM, . . . . .	1,277	270,138	114,002	83	1,530				
BIRMINGHAM, . . . . .	6,708	82,735	80,891						
BIRMINGHAM, . . . . .	14,400	140,607	6,268						
BIRMINGHAM, . . . . .	1,408	80,794	1,041	57	10,000				
BIRMINGHAM, . . . . .	12,403	147,635	105,081	48	128				
BIRMINGHAM, . . . . .	3,514	87,272	20,760						
TOTAL, . . . . .	1,707,338	17,650,630	2,791,750	3,043	187,043	63,082	8,069		



## PRODUCE OF THE CROPS IN THE YEAR 1888—continued.

## OF THE CROPS.

OVERS CROPS.									H.C.		FOUR LAW CROPS.
Produce.	Value.	Mixed Wheat and Barley.	Oats and Potatoes.	Colts.	Yields.	Wheat.	Flax.	Wheat (A.M.).	Wheat.	Wheat.	
Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	
14,057	14,125	5,514	53	4,515	144	58	1,207	5,889	44,487	GRASS.	
14,047	22,422	1,202	59	5,297	5,772	94	4,576	5,255	4,189	HYDRATED.	
3,343	6,442	1,781	49	6,022	48	17	58,002	5,025	51,485	HYDRATED.	
1,867	15,851	1,157	68	5,025	1,958	64		5,025	15,073	KENTON.	
8,558	18,286	5,554	521	1,042	105	150	2,400	5,025	26,744	KELLS.	
20,000	3,887	544		5,479	187	621		502	14,045	KIRKBY.	
15,964	7,099	1,440	147	1,139	245	275	44,594	5,255	1,200	KIRKBY.	
22,582	17,138	2,495	49	5,058	115	21	20	11,569	52,502	KIRKBY.	
4,181	5,507	5,616	89	1,057	85	37	185	187	20,226	KIRKBY.	
7,569	7,454	612	5	587	189		16	1,396	10,716	KIRKBY.	
20,000	9,888	1,815	54	5,189	585	675	110	5,575	31,801	KIRKBY.	
4,758	7,767	5,236	58	706	94	45		5,025	5,255	KIRKBY.	
15,209	8,808	5,774	865	5,088	80	8		5,025	50,203	KIRKBY.	
22,157	15,458	8,000	44	4,472	73	30	287	374	22,545	KIRKBY.	
17,748	15,538	1,185	647	433	765	180		5,255	7,506	KIRKBY.	
10,177	4,598	109	79	285	592	3	5,688	17,740	25,551	KIRKBY.	
10,778	46,367	821	185	1,180	255	8	56,000	5,255	5,255	KIRKBY.	
20,000	20,000	275	80	455	970	149	161,207	10,000	5,555	KIRKBY.	
25,879	26,219	12,515	1,022	4,615	185	309	25	5,799	75,016	KIRKBY.	
24,719	26,753	2,500	508	969	7,321	361	59,523	59,523	10,554	KIRKBY.	
10,000	15,043	8,484	189	5,125	65			5,255	6,408	KIRKBY.	
11,449	8,715	1,408	80	589	590	80	26,251	5,411	50,000	KIRKBY.	
18,488	15,429	4,581	136	5,260	194	418	59	5,470	49,537	KIRKBY.	
20,000	169,185	5,942	182	5,250	682	54	27,251	10,740	5,255	KIRKBY.	
13,730	5,513	1,545	95	5,079	144	149	780	5,255	49,000	KIRKBY.	
12,554	99,447	5,538	44	5,331	17	2,599	189	1,779	55,000	KIRKBY.	
23,450	15,876	2,096	267	485	5,504	149	11,153	10,000	59,523	KIRKBY.	
20,281	18,799	4,589	80	4,178	4,049	301	185	5,666	10,000	KIRKBY.	
20,773	16,317	444	145	876	171	252	189,977	10,000	25,000	KIRKBY.	
14,057	58,773	4,706	502	5,742	865	20		5,718	51,002	KIRKBY.	
12,549	5,305	5,535	18	5,431	88	54	675	718	49,283	KIRKBY.	
12,549	64,799	26,361	259	1,435	1,043	3		11,000	5,313	KIRKBY.	
12,174	17,559	1,504	34	5,449	445	59	64,321	5,681	5,719	KIRKBY.	
8,070	5,071	860	80	5,052	765	97	100	1,254	24,711	KIRKBY.	
12,941	6,128	1,660	247	5,787	65			4,593	27,507	KIRKBY.	
11,735	4,869	1,374	35	5,354	58	109	555	1,581	50,000	KIRKBY.	
15,579	81,555	5,405	55	708	645	149	129,505	26,480	18,145	KIRKBY.	
11,739	25,725	2,341	180	5,365	277	5,774		5,000	10,000	KIRKBY.	
26,736	77,059	5,045	303	5,855	568	584		10,000	50,000	KIRKBY.	
12,749	25,025	4,489	261	4,338	134	549		7,011	26,708	KIRKBY.	
12,550	82,082	4,847	163	762	49	189		15,409	52,555	KIRKBY.	
1,236	14,180	5,265	147	899	85			4,122	28,552	KIRKBY.	
20,554	27,774	5,542	264	4,823	515	244	20	16,216	5,447	KIRKBY.	
12,546	15,055	2,420	168	5,865	140	445	121	5,473	25,000	KIRKBY.	
26,714	38,555	16,216	229	5,100	144	55		25,000	18,000	KIRKBY.	
41,583	39,447	534	36	943	158	54	105,148	59,759	5,534	KIRKBY.	
31,734	44,153	2,615	395	1,673	5,317	444	84,656	59,554	2,597	KIRKBY.	
14,736	15,114	1,425	185	1,089	84	35	4,364	5,375	54,901	KIRKBY.	
96,115	55,368	5,555	49	1,479	492	59	164,871	25,571	15,837	KIRKBY.	
9,165	5,515	1,204		1,409	51		149	520	4,023	KIRKBY.	
27,484	24,869	11,729	586	5,029	44	1,802		5,414	29,292	KIRKBY.	
7,092	11,138	5,415	107	5,047	31	807	10	1,203	22,715	KIRKBY.	
7,450	5,565	1,209	85	802	129			4,119	14,552	KIRKBY.	
11,020	80,769	1,555	141	1,519	419	121		14,045	55,000	KIRKBY.	
10,972	11,418	5,504	356	679	54	59		5,581	22,706	KIRKBY.	
8,555	38,556	1,329	36	1,745		691		5,170	21,170	KIRKBY.	
19,007	41,287	8,391	495	4,718	85	512		4,486	21,901	KIRKBY.	
6,945	5,794	5,449	30	1,590	17	5	10	1,284	10,000	KIRKBY.	
10,123	29,458	5,205	76	5,645	87	159		14,681	17,094	KIRKBY.	
18,612	18,794	5,728	179	5,941	1,696	552	15	7,494	12,002	KIRKBY.	
4,808	5,109	1,507	30	1,038	741	113		1,589	4,875	KIRKBY.	
10,577	22,500	5,216	105	5,570	28	39	275	7,394	45,584	KIRKBY.	
20,000	74,508	5,942	114	5,593	750	88	169,899	12,045	5,484	KIRKBY.	
11,578	12,014	629	7	640	81		65,665	5,075	11,049	KIRKBY.	
10,545	5,343	1,605	24	585	5	23	20	1,284	25,513	KIRKBY.	
49,790	6,308	256	6	5,409	960	81		5,489	15,349	KIRKBY.	
50,161	20,513	5,250	54	1,053	142	54	25	11,043	16,216	KIRKBY.	
10,578	22,415	5,609	297	5,089	507	98		11,043	54,311	KIRKBY.	
21,708	14,424	4,269	47	5,339	49	7		4,517	75,000	KIRKBY.	
20,560	8,207	621	85	5,759	7	38	96	1,415	21,679	KIRKBY.	
27,586	17,426	5,025	543	7,268	117	555	296	5,802	21,418	KIRKBY.	
5,478	22,525	5,514	329	1,601	79	245		5,100	1,000	KIRKBY.	
84,438	84,520	5,485	41	4,013	159	4,399		5,849	25,000	KIRKBY.	
8,251	8,207	8,459	69	2,169	43	14	75	1,157	10,043	KIRKBY.	
17,376	46,085	11,435	445	5,616	166	3,002		11,285	82,544	KIRKBY.	
16,877	26,141	1,263	96	1,541	8	31		5,254	17,168	KIRKBY.	
16,252	37,329	18,741	305	5,599	340		175	1,729	17,000	KIRKBY.	
21,589	1,569	1,754	15	8,745	515	63		250	17,000	KIRKBY.	
10,992	46,427	12,013	682	5,434	180	669	50	28,294	21,351	KIRKBY.	
8,267	21,271	4,608	179	1,688	162			2,649	4,181	KIRKBY.	
5,005,267	5,005,261	468,858	25,445	555,545	61,799	47,508	5,205,769	1,565,558	5,794,185	TOTAL.	



TABLE 2.—SHOWING THE NUMBER OF HOLDINGS KEEPING ONE ACRE, AND EXTENT OF LAND UNDER CROPS IN EACH YEAR FROM 1879 TO 1888, BY COUNTIES AND PROVINCES.

COUNTIES.	Year.	No. of Holdings having 1 Acre.	Extent under Crops in Statute Acres in Each Year from 1879 to 1888.										Total Area of County in Acres.				
			Cereals, Grass, and Pasture.					Other Crops.									
			Wheat.	Barley.	Oats.	Grass.	Pasture.	Other Cereals.	Other Crops.	Orchards.	Plantations.	Other.					
Antrim.	1879	36,969	4,518	77,721	1,211	4	27	3,231	83,534	45,746	11,690	714	2,344	83,534	10,181	79,353	266,425
	1880	36,969	3,963	77,057	907	21	69	3,093	84,874	46,811	10,728	889	2,245	84,874	10,538	79,336	266,008
	1881	36,969	4,440	78,445	1,353	5	21	3,491	84,770	45,327	9,471	875	2,271	84,770	11,792	77,947	265,824
	1882	36,969	4,534	77,447	1,311	18	21	3,506	85,121	46,274	9,263	879	2,248	85,121	12,548	77,447	265,824
	1883	36,969	5,026	78,013	1,068	3	81	2,796	85,437	46,235	10,064	875	2,268	85,437	12,463	77,181	265,777
	1884	36,969	1,698	78,013	988	5	75	2,991	85,069	46,131	9,941	841	2,307	85,069	10,811	77,258	265,728
	1885	36,969	1,698	78,013	1,194	1	39	1	78,073	45,545	9,791	824	2,24	44,333	11,106	78,211	265,418
	1886	36,969	2,240	77,411	1,281	7	80	1,321	77,761	46,339	10,181	811	2,247	77,761	11,908	78,212	265,272
	1887	36,969	2,240	77,411	1,098	5	41	1,311	76,609	46,470	11,513	810	2,248	76,609	12,502	78,258	265,123
	1888	36,969	2,240	77,411	988	5	54	1,361	76,609	46,470	11,513	810	2,248	76,609	12,502	78,258	265,123
Ayrshire.	1879	18,148	7,703	88,254	584	3	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1880	18,148	5,481	88,254	29	5	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1881	18,148	7,718	88,254	188	7	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1882	18,148	4,788	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1883	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1884	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1885	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1886	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1887	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1888	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
Argyll.	1879	18,148	7,703	88,254	584	3	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1880	18,148	5,481	88,254	29	5	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1881	18,148	7,718	88,254	188	7	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1882	18,148	4,788	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1883	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1884	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1885	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1886	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1887	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1888	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
Belfast.	1879	18,148	7,703	88,254	584	3	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1880	18,148	5,481	88,254	29	5	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1881	18,148	7,718	88,254	188	7	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1882	18,148	4,788	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1883	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1884	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1885	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1886	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1887	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1888	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
Belfast.	1879	18,148	7,703	88,254	584	3	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1880	18,148	5,481	88,254	29	5	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1881	18,148	7,718	88,254	188	7	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1882	18,148	4,788	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1883	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1884	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1885	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1886	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1887	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1888	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
Belfast.	1879	18,148	7,703	88,254	584	3	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1880	18,148	5,481	88,254	29	5	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1881	18,148	7,718	88,254	188	7	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1882	18,148	4,788	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1883	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1884	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1885	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1886	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1887	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1888	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
Belfast.	1879	18,148	7,703	88,254	584	3	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1880	18,148	5,481	88,254	29	5	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1881	18,148	7,718	88,254	188	7	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1882	18,148	4,788	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1883	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1884	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1885	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1886	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	11,475	47,661	189,119
	1887	18,148	3,598	87,307	188	1	20	460	87,089	59,279	5,660	734	8,275	42,607	111		



TABLE 2.—SHOWING THE NUMBER OF HOLDINGS EXCEEDING ONE ACRE, AND EXTENT OF LANDS UNDER CROPS IN EACH YEAR FROM 1879 TO 1888, BY COUNTRIES AND PROVINCES.—continued.

[illegible]







TABLE 2.—SHOWING THE NUMBER OF HOLDINGS RECORDING ONE ACRE, AND EXTENT OF LAND UNDER CROPS IN EACH YEAR FROM 1879 TO 1888, BY COUNTY AND PROVINCE—continued.

COUNTY.	Year.	No. of Holdings recording 1 acre.	EXTENT UNDER CROPS IN STATUTE ACRES IN EACH YEAR FROM 1879 TO 1888.														Total extent under crops.
			CEREALS, GRASSES, AND FIELDS.							OTHER CROPS.							
			Wheat.	Barley.	Oats.	Hay.	Fields.	Other.	Other.	Other.	Other.	Other.	Other.	Other.	Other.		
Buckingham:	1879	15,528	1,331	38,494	481	28	843	27,753	26,861	4,275	441	5,238	20,771	184	11,548	221,181	
	1880	15,538	775	38,182	481	28	843	27,753	26,861	4,275	441	5,238	20,771	184	11,548	221,181	
	1881	15,792	482	38,329	276	6	761	27,982	26,901	4,243	388	1,770	20,813	68	10,877	221,181	
	1882	15,685	537	37,235	254	4	747	28,018	26,439	5,141	622	2,033	20,778	58	10,428	221,181	
	1883	15,545	851	36,535	195	5	445	27,433	25,373	5,268	679	5,174	20,598	17	10,411	221,181	
	1884	15,475	178	36,365	118	4	429	26,861	25,178	4,298	478	4,298	20,518	4	10,371	221,181	
	1885	15,454	199	36,543	74	5	580	26,861	24,924	4,291	440	2,772	20,518	4	10,371	221,181	
	1886	15,530	364	34,139	295	5	569	26,861	23,811	4,298	488	2,563	20,518	12	10,371	221,181	
	1887	15,547	536	35,411	168	5	544	26,861	25,549	4,092	717	2,033	20,518	5	10,371	221,181	
	1888	15,585	377	35,308	122	5	543	26,861	25,519	4,346	770	2,436	20,518	5	10,371	221,181	
Bucks:	1879	14,511	365	36,302	94	1	187	27,688	25,037	5,071	447	1,537	20,512	153	10,445	221,181	
	1880	14,783	736	35,555	749	1	174	27,688	27,688	5,071	447	1,537	20,512	153	10,445	221,181	
	1881	14,783	334	35,562	603	1	174	27,688	27,688	5,071	447	1,537	20,512	153	10,445	221,181	
	1882	14,783	365	36,302	94	1	187	27,688	25,037	5,071	447	1,537	20,512	153	10,445	221,181	
	1883	14,586	469	34,884	897	4	126	26,861	25,178	3,648	628	1,669	20,518	48	10,371	221,181	
	1884	14,680	270	35,876	714	30	715	26,861	24,924	3,648	628	1,669	20,518	54	10,371	221,181	
	1885	14,655	270	35,876	671	1	168	26,861	24,924	3,648	628	1,669	20,518	54	10,371	221,181	
	1886	14,616	143	34,228	578	1	168	26,861	24,924	3,648	628	1,669	20,518	54	10,371	221,181	
	1887	14,514	807	35,130	578	1	168	26,861	24,924	3,648	628	1,669	20,518	54	10,371	221,181	
	1888	14,534	348	35,353	698	1	168	26,861	24,924	3,648	628	1,669	20,518	54	10,371	221,181	
Cambridge:	1879	21,668	14,375	47,352	29,626	87	124	6,243	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1880	21,374	14,799	48,447	18,068	87	124	6,243	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1881	21,349	14,838	44,348	17,409	30	124	11,643	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1882	21,795	14,408	47,432	18,068	30	124	11,643	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1883	21,530	6,852	46,447	18,068	44	124	7,767	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1884	21,440	4,580	46,338	18,017	34	77	7,767	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1885	21,569	4,474	46,338	17,408	34	77	7,767	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1886	21,651	4,407	46,338	18,174	37	77	7,767	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1887	21,807	4,496	46,338	18,068	45	77	7,767	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
	1888	21,541	4,579	47,412	17,545	45	77	7,767	33,454	21,185	4,254	4,736	20,518	18	11,548	221,181	
Chesh:	1879	25,337	2,088	187,435	61	5	268	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1880	25,324	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1881	25,417	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1882	25,337	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1883	25,337	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1884	25,337	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1885	25,337	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1886	25,337	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1887	25,337	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
	1888	25,337	1,549	185,147	24	5	195	117,185	48,567	16,324	1,022	2,414	63,576	21,478	37,128	221,181	
Devon:	1879	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1880	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1881	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1882	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1883	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1884	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1885	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1886	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1887	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
	1888	6,315	31,284	25,842	2,436	87	10	3,398	14,769	7,988	3,618	20,518	21,478	37,128	221,181		
Durham:	1879	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1880	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1881	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1882	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1883	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1884	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1885	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1886	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1887	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1888	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
Essex:	1879	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1880	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1881	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1882	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1883	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1884	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1885	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
Gloucester:	1879	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1880	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1881	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1882	2,919	1,265	38,714	1,063	5	43	25,148	14,947	4,618	1,660	1,857	20,518	17,637	37,128	221,181	
	1883	2,919	1,265	38,714	1,063	5	43</										



TABLE 2.—SHOWING THE NUMBER OF HOLDINGS BEGINNING ONE ACRE, AND EXTENT OF LAND UNDER CROPS IN EACH YEAR FROM 1879 TO 1888, BY COUNTY AND PROVINCE—continued.

## PROVINCES.

PROVINCES.	Year.	No. of Holdings containing 1 Acre.	EXTENT UNDER CROPS IN STATUTE ACRES IN EACH YEAR FROM 1879 TO 1888.														Total under Crops.		
			CEREALS, GRASS, AND FRUIT.								OTHER CROPS.								
			Wheat.	Oats.	Barley.	Maize.	Grass.	Other.	Wheat.	Oats.	Barley.	Maize.	Grass.	Other.					
LEINSTER:	1879	37,430	43,779	11,020	15,149	781	1,354	4,737	802,589	148,628	80,696	17,368	21,737	280,674	1,636,906,574	1,636,906,574			
	1880	36,897	44,931	307,418	100,188	107	920	5,039	811,238	138,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1881	36,897	45,117	312,226	144,288	20	825	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1882	36,897	45,999	317,257	128,187	154	1,162	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1883	36,897	45,999	317,257	128,187	154	1,162	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1884	36,897	45,999	317,257	128,187	154	1,162	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1885	36,897	45,999	317,257	128,187	154	1,162	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1886	36,897	45,999	317,257	128,187	154	1,162	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1887	36,897	45,999	317,257	128,187	154	1,162	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
	1888	36,897	45,999	317,257	128,187	154	1,162	5,039	812,715	151,468	102,051	18,814	21,737	280,674	1,636,906,574	1,636,906,574			
MUNSTER:	1879	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1880	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1881	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1882	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1883	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1884	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1885	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1886	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1887	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
	1888	11,704	63,507	222,326	80,059	140	1,321	445	348,907	103,270	61,712	10,152	35,980	61,712	1,040,580,710	1,040,580,710			
ULSTER:	1879	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1880	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1881	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1882	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1883	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1884	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1885	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1886	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1887	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			
	1888	30,733	49,093	443,873	9,894	133	1,783	4,077	768,385	335,838	182,507	5,052	24,068	250,947	2,546,030,460	2,546,030,460			

## TOTAL OF IRELAND.

	Year.	No. of holdings beginning 1 Acre.	EXTENT UNDER CROPS IN STATUTE ACRES IN EACH YEAR FROM 1879 TO 1888.																Total under crops in 1888.
			CEREALS, GRASS, AND FRUIT.								OTHER CROPS.								
			Wheat.	Oats.	Barley.	Maize.	Grass.	Other.	Wheat.	Oats.	Barley.	Maize.	Grass.	Other.	Wheat.	Oats.	Barley.		
TOTAL OF IRELAND:	1879	107,207	370,213	1,100,281	284,237	613	8,455	16,311	1,711,161	802,472	314,077	31,152	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1880	107,207	370,213	1,100,281	284,237	613	7,767	10,297	1,703,427	802,050	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1881	107,211	370,213	1,100,281	284,237	613	7,767	11,194	1,707,379	802,050	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1882	107,217	370,213	1,100,281	284,237	613	7,776	11,238	1,709,197	802,119	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1883	107,214	370,213	1,100,281	284,237	613	7,780	11,230	1,709,611	802,437	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1884	107,217	370,213	1,100,281	284,237	613	7,780	11,230	1,709,611	802,437	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1885	107,217	370,213	1,100,281	284,237	613	7,780	11,230	1,709,611	802,437	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1886	107,217	370,213	1,100,281	284,237	613	7,780	11,230	1,709,611	802,437	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1887	107,217	370,213	1,100,281	284,237	613	7,780	11,230	1,709,611	802,437	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		
	1888	107,217	370,213	1,100,281	284,237	613	7,780	11,230	1,709,611	802,437	312,071	41,212	45,367	356,059	1,546,873	1,546,873	1,546,873		



**From the Editors and Authors:** *Journal of Business Ethics* is now **Free to Read** for all users. <http://www.springer.com/jbe>

[illegible]







**Figure 10—Barriers to Access to the Health Insurance Market**

Category	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9
Category A	Item A1.1	Item A1.2	Item A1.3	Item A1.4	Item A1.5	Item A1.6	Item A1.7	Item A1.8	Item A1.9
	Item A2.1	Item A2.2	Item A2.3	Item A2.4	Item A2.5	Item A2.6	Item A2.7	Item A2.8	Item A2.9
	Item A3.1	Item A3.2	Item A3.3	Item A3.4	Item A3.5	Item A3.6	Item A3.7	Item A3.8	Item A3.9
Category B	Item B1.1	Item B1.2	Item B1.3	Item B1.4	Item B1.5	Item B1.6	Item B1.7	Item B1.8	Item B1.9
	Item B2.1	Item B2.2	Item B2.3	Item B2.4	Item B2.5	Item B2.6	Item B2.7	Item B2.8	Item B2.9
	Item B3.1	Item B3.2	Item B3.3	Item B3.4	Item B3.5	Item B3.6	Item B3.7	Item B3.8	Item B3.9
Category C	Item C1.1	Item C1.2	Item C1.3	Item C1.4	Item C1.5	Item C1.6	Item C1.7	Item C1.8	Item C1.9
	Item C2.1	Item C2.2	Item C2.3	Item C2.4	Item C2.5	Item C2.6	Item C2.7	Item C2.8	Item C2.9
	Item C3.1	Item C3.2	Item C3.3	Item C3.4	Item C3.5	Item C3.6	Item C3.7	Item C3.8	Item C3.9
Category D	Item D1.1	Item D1.2	Item D1.3	Item D1.4	Item D1.5	Item D1.6	Item D1.7	Item D1.8	Item D1.9
	Item D2.1	Item D2.2	Item D2.3	Item D2.4	Item D2.5	Item D2.6	Item D2.7	Item D2.8	Item D2.9
	Item D3.1	Item D3.2	Item D3.3	Item D3.4	Item D3.5	Item D3.6	Item D3.7	Item D3.8	Item D3.9
Category E	Item E1.1	Item E1.2	Item E1.3	Item E1.4	Item E1.5	Item E1.6	Item E1.7	Item E1.8	Item E1.9
	Item E2.1	Item E2.2	Item E2.3	Item E2.4	Item E2.5	Item E2.6	Item E2.7	Item E2.8	Item E2.9
	Item E3.1	Item E3.2	Item E3.3	Item E3.4	Item E3.5	Item E3.6	Item E3.7	Item E3.8	Item E3.9
Category F	Item F1.1	Item F1.2	Item F1.3	Item F1.4	Item F1.5	Item F1.6	Item F1.7	Item F1.8	Item F1.9
	Item F2.1	Item F2.2	Item F2.3	Item F2.4	Item F2.5	Item F2.6	Item F2.7	Item F2.8	Item F2.9
	Item F3.1	Item F3.2	Item F3.3	Item F3.4	Item F3.5	Item F3.6	Item F3.7	Item F3.8	Item F3.9
Category G	Item G1.1	Item G1.2	Item G1.3	Item G1.4	Item G1.5	Item G1.6	Item G1.7	Item G1.8	Item G1.9
	Item G2.1	Item G2.2	Item G2.3	Item G2.4	Item G2.5	Item G2.6	Item G2.7	Item G2.8	Item G2.9
	Item G3.1	Item G3.2	Item G3.3	Item G3.4	Item G3.5	Item G3.6	Item G3.7	Item G3.8	Item G3.9
Category H	Item H1.1	Item H1.2	Item H1.3	Item H1.4	Item H1.5	Item H1.6	Item H1.7	Item H1.8	Item H1.9
	Item H2.1	Item H2.2	Item H2.3	Item H2.4	Item H2.5	Item H2.6	Item H2.7	Item H2.8	Item H2.9
	Item H3.1	Item H3.2	Item H3.3	Item H3.4	Item H3.5	Item H3.6	Item H3.7	Item H3.8	Item H3.9
Category I	Item I1.1	Item I1.2	Item I1.3	Item I1.4	Item I1.5	Item I1.6	Item I1.7	Item I1.8	Item I1.9
	Item I2.1	Item I2.2	Item I2.3	Item I2.4	Item I2.5	Item I2.6	Item I2.7	Item I2.8	Item I2.9
	Item I3.1	Item I3.2	Item I3.3	Item I3.4	Item I3.5	Item I3.6	Item I3.7	Item I3.8	Item I3.9
Category J	Item J1.1	Item J1.2	Item J1.3	Item J1.4	Item J1.5	Item J1.6	Item J1.7	Item J1.8	Item J1.9
	Item J2.1	Item J2.2	Item J2.3	Item J2.4	Item J2.5	Item J2.6	Item J2.7	Item J2.8	Item J2.9
	Item J3.1	Item J3.2	Item J3.3	Item J3.4	Item J3.5	Item J3.6	Item J3.7	Item J3.8	Item J3.9







Notes: 1. The figures are given in thousands of persons in the British Isles only.

STATISTICS OF THE YEAR

|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|



TABLE 11.—*Showing the Systems of Measurements, and the Quantity of Lard Stock in each Country and Portion of Country, in 1833.*

General Information		Particulars		Total	
No.	Description	Particulars	Total	No.	Description
1	...	...	...	1	...
2	...	...	...	2	...
3	...	...	...	3	...
4	...	...	...	4	...
5	...	...	...	5	...
6	...	...	...	6	...
7	...	...	...	7	...
8	...	...	...	8	...
9	...	...	...	9	...
10	...	...	...	10	...
11	...	...	...	11	...
12	...	...	...	12	...
13	...	...	...	13	...
14	...	...	...	14	...
15	...	...	...	15	...
16	...	...	...	16	...
17	...	...	...	17	...
18	...	...	...	18	...
19	...	...	...	19	...
20	...	...	...	20	...
21	...	...	...	21	...
22	...	...	...	22	...
23	...	...	...	23	...
24	...	...	...	24	...
25	...	...	...	25	...
26	...	...	...	26	...
27	...	...	...	27	...
28	...	...	...	28	...
29	...	...	...	29	...
30	...	...	...	30	...
31	...	...	...	31	...
32	...	...	...	32	...
33	...	...	...	33	...
34	...	...	...	34	...
35	...	...	...	35	...
36	...	...	...	36	...
37	...	...	...	37	...
38	...	...	...	38	...
39	...	...	...	39	...
40	...	...	...	40	...
41	...	...	...	41	...
42	...	...	...	42	...
43	...	...	...	43	...
44	...	...	...	44	...
45	...	...	...	45	...
46	...	...	...	46	...
47	...	...	...	47	...
48	...	...	...	48	...
49	...	...	...	49	...
50	...	...	...	50	...
51	...	...	...	51	...
52	...	...	...	52	...
53	...	...	...	53	...
54	...	...	...	54	...
55	...	...	...	55	...
56	...	...	...	56	...
57	...	...	...	57	...
58	...	...	...	58	...
59	...	...	...	59	...
60	...	...	...	60	...
61	...	...	...	61	...
62	...	...	...	62	...
63	...	...	...	63	...
64	...	...	...	64	...
65	...	...	...	65	...
66	...	...	...	66	...
67	...	...	...	67	...
68	...	...	...	68	...
69	...	...	...	69	...
70	...	...	...	70	...
71	...	...	...	71	...
72	...	...	...	72	...
73	...	...	...	73	...
74	...	...	...	74	...
75	...	...	...	75	...
76	...	...	...	76	...
77	...	...	...	77	...
78	...	...	...	78	...
79	...	...	...	79	...
80	...	...	...	80	...
81	...	...	...	81	...
82	...	...	...	82	...
83	...	...	...	83	...
84	...	...	...	84	...
85	...	...	...	85	...
86	...	...	...	86	...
87	...	...	...	87	...
88	...	...	...	88	...
89	...	...	...	89	...
90	...	...	...	90	...
91	...	...	...	91	...
92	...	...	...	92	...
93	...	...	...	93	...
94	...	...	...	94	...
95	...	...	...	95	...
96	...	...	...	96	...
97	...	...	...	97	...
98	...	...	...	98	...
99	...	...	...	99	...
100	...	...	...	100	...



[illegible]



[illegible]











TABLE 13.—SHOWING THE QUANTITY OF LIVE STOCK IN EACH YEAR FROM 1879 TO 1888, BY COUNTIES AND PROVINCES.

COUNTIES.	Year.	No. of Horses.				Mares and Arids.		No. of Cattle.				No. of Sheep.		No. of Pigs.		No. of Horses.	No. of Pigs.
		Value of stock at 1879.	Value of stock at 1880.	Value of stock at 1881.	Value of stock at 1882.	No. of Horses.	No. of Aids.	Value of stock at 1879.	Value of stock at 1880.	Value of stock at 1881.	Value of stock at 1882.	Value of stock at 1879.	Value of stock at 1880.	Value of stock at 1881.	Value of stock at 1882.		
Antrim:	1879	26,544	2,349	2,735	101	407	80,781	23,485	27,792	43,736	28,371	3,109	43,445	5,303	413,208		
	1880	27,149	2,559	1,607	145	604	80,502	21,481	26,988	43,740	24,114	3,303	43,416	5,345	427,894		
	1881	26,120	2,623	1,492	99	574	79,136	20,225	26,486	43,732	24,446	3,494	43,412	5,374	436,100		
	1882	25,539	1,670	1,673	68	533	76,196	19,164	26,125	43,731	19,312	3,595	43,417	5,377	436,117		
	1883	25,505	1,696	1,668	72	415	76,000	20,880	26,124	43,733	20,357	4,267	43,416	5,382	436,138		
	1884	25,215	1,681	1,713	62	348	76,307	21,756	26,429	43,737	19,701	3,803	43,469	5,385	436,428		
	1885	25,509	2,699	1,769	79	461	80,454	24,112	26,773	43,740	20,742	4,002	43,462	5,388	436,885		
	1886	25,077	1,786	1,699	70	469	80,747	20,548	26,745	43,741	20,548	4,002	43,461	5,391	437,812		
	1887	25,174	1,676	1,668	61	502	80,885	20,159	26,693	43,741	20,462	4,002	43,461	5,392	437,812		
	1888	25,174	1,674	1,693	319	511	80,887	22,792	26,704	43,743	20,543	4,002	43,461	5,393	437,812		
Armagh:	1879	12,181	806	1,005	262	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1880	12,184	722	669	90	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1881	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1882	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1883	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1884	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1885	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1886	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1887	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
	1888	12,184	741	703	218	9,192	42,738	19,894	26,864	5,792	5,011	4,636	13,161	9,095	344,732		
Carmarthen:	1879	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1880	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1881	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1882	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1883	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1884	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1885	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1886	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1887	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
	1888	6,617	1,164	342	497	9,825	24,201	11,378	18,814	46,878	27,489	9,486	15,865	5,818	175,816		
Down:	1879	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1880	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1881	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1882	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1883	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1884	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1885	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1886	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1887	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1888	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
Fermanagh:	1879	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1880	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1881	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1882	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1883	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1884	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1885	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1886	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1887	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1888	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
Galway:	1879	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1880	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1881	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1882	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1883	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1884	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1885	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1886	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1887	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1888	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
Leitrim:	1879	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1880	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1881	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1882	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1883	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1884	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1885	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236	2,963	13,884	3,768	622,091		
	1886	20,719	1,898	1,792	31	1,779	99,871	35,549	36,752	105,694	56,236						



TABLE 13.—SHOWING THE QUANTITY OF LIVE STOCK IN EACH YEAR FROM 1879 TO 1888, BY COUNTRY AND PROVINCES—continued.

COUNTRY.	Year.	No. of Horses.			Mean Area.		No. of Cattle.			No. of Sheep.		No. of Pigs.		No. of Acres.	No. of Inhabitants.
		Dec. 31st 1879.	Dec. 31st 1880.	Dec. 31st 1881.	Acres.	Acres.	Dec. 31st 1879.	Dec. 31st 1880.	Dec. 31st 1881.	Dec. 31st 1879.	Dec. 31st 1880.	Dec. 31st 1881.	Dec. 31st 1882.		
Dorset:	1879	18,730	1,215	384	500	1,000	30,324	6,037	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1880	18,435	1,214	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1881	18,478	1,214	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1882	18,730	1,215	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1883	18,478	1,214	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1884	18,730	1,215	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1885	18,478	1,214	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1886	18,478	1,214	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1887	18,478	1,214	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
	1888	18,478	1,214	384	525	1,004	30,655	6,045	8,257	45,025	25,574	1,235	22,014	5,584	710,220
Farnham:	1879	6,407	716	412	146	4,071	35,585	15,115	28,519	5,559	5,875	2,471	15,570	4,514	265,000
	1880	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1881	6,407	716	412	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1882	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1883	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1884	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1885	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1886	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1887	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
	1888	5,123	708	425	154	4,007	34,644	14,384	28,758	5,559	4,770	1,830	13,340	4,500	265,000
Gaimay:	1879	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1880	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1881	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1882	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1883	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1884	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1885	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1886	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1887	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
	1888	18,200	4,750	5,800	1,540	14,020	101,644	40,220	26,222	225,420	150,140	8,400	60,000	16,300	730,000
Hart:	1879	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1880	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1881	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1882	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1883	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1884	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1885	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1886	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1887	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
	1888	12,240	8,411	2,900	2,530	6,055	134,260	39,580	35,001	72,711	37,427	6,007	41,000	21,300	400,000
Hart:	1879	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1880	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1881	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1882	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1883	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1884	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1885	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1886	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1887	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
	1888	11,100	1,204	1,004	3,811	5,320	121,440	31,700	35,448	60,000	20,000	7,700	42,000	20,000	400,000
Hart:	1879	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1880	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1881	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1882	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1883	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1884	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1885	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1886	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1887	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
	1888	10,214	2,000	1,000	400	4,115	55,300	10,000	11,000	50,000	11,500	1,400	10,000	5,000	100,000
Hart:	1879	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1880	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1881	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1882	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1883	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1884	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1885	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1886	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1887	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
	1888	12,000	2,000	1,000	1,000	5,000	100,000	10,000	10,000	50,000	10,000	1,000	10,000	5,000	100,000
Hart:	1879	10,214	2,000	1,000	400										



TABLE 13.—SHOWING THE QUANTITY OF LIVE STOCK IN EACH YEAR FROM 1879 TO 1888, BY COUNTIES AND PROVINCES—continued.

COUNTY.	Year.	No. of Horses.			Mules and Asses.		No. of Cattle.			No. of Sheep.		No. of Pigs.		No. of Goats.	No. of Poultry.
		Two and over years.	One year and under year.	Under year.	No. of Mules.	No. of Asses.	Two and over years.	One year and under year.	Under year.	Two and over years.	Under year.	Two and over years.	Under year.		
Lancashire:	1879	22,535	1,695	1,585	1,669	8,885	156,554	38,798	64,811	42,164	18,698	5,344	41,254	11,725	447,898
	1880	21,101	1,770	1,180	1,815	8,485	117,263	34,998	59,699	39,744	17,354	5,344	39,544	10,138	433,771
	1881	20,495	1,845	1,385	1,711	8,345	106,798	33,297	58,884	38,264	16,575	5,335	40,244	9,807	426,598
	1882	22,497	1,515	1,245	1,711	8,345	106,798	33,297	58,884	38,264	16,575	5,335	40,244	9,807	426,598
	1883	21,755	1,585	1,184	1,747	8,323	115,802	35,535	60,679	39,835	16,815	5,344	40,535	9,805	418,908
	1884	21,585	1,665	1,244	1,934	8,363	102,585	35,613	60,881	39,805	16,807	5,344	40,535	10,044	406,428
	1885	21,525	1,667	1,211	1,946	8,419	102,585	35,613	60,881	39,805	16,807	5,344	40,535	10,044	406,428
	1886	21,525	1,667	1,211	1,946	8,419	102,585	35,613	60,881	39,805	16,807	5,344	40,535	10,044	406,428
	1887	22,512	1,641	1,181	1,946	8,419	102,585	35,613	60,881	39,805	16,807	5,344	40,535	10,044	406,428
	1888	21,625	1,645	1,245	1,946	8,419	102,585	35,613	60,881	39,805	16,807	5,344	40,535	10,044	406,428
Lancashire:	1879	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1880	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1881	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1882	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1883	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1884	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1885	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1886	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1887	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
	1888	13,525	1,785	1,090	98	326	51,554	25,265	30,192	31,195	15,715	2,543	25,265	4,465	375,811
Lancashire:	1879	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1880	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1881	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1882	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1883	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1884	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1885	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1886	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1887	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
	1888	17,385	1,445	1,145	44	484	64,675	27,795	37,654	38,714	17,434	3,434	36,834	8,731	384,931
Lancashire:	1879	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1880	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1881	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1882	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1883	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1884	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1885	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1886	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1887	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1888	4,785	1,285	1,125	685	9,974	20,274	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
Lancashire:	1879	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1880	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1881	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1882	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1883	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1884	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1885	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1886	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1887	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
	1888	5,125	1,685	1,434	545	1,635	20,284	22,272	14,486	20,284	12,826	1,846	14,822	8,711	218,418
Lancashire:	1879	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1880	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1881	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1882	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1883	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1884	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1885	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1886	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1887	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1888	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
Lancashire:	1879	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1880	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1881	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1882	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1883	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1884	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1885	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1886	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884
	1887	1,125	1,095	1,045	794	3,252	117,891	32,135	14,754	144,075	81,487	1,255	11,177	5,695	899,884



TABLE 12.—SHOWING THE QUANTITY OF LIVE STOCK IN EACH YEAR FROM 1879 TO 1888, BY COUNTIES AND PROVINCES—continued.

COUNTIES.	Year.	No. of Horses.			Horses and Ases.		No. of Cattle.			No. of Sheep.		No. of Pigs.		No. of Goats.	No. of Poultry.
		Two years and upwards.	One year and under one year.	Under one year.	No. of Horses.	No. of Ases.	Two years and upwards.	One year and under one year.	Under one year.	Two years and upwards.	Under one year.	Two years and upwards.	Under one year.		
Essex:—  Area, 561,007 Acres.	1879	6,676	1,497	1,427	8,174	5,000	56,748	55,870	21,630	517,504	54,587	3,793	54,589	11,536	475,322
	1880	6,748	1,498	1,397	8,246	5,000	56,705	55,880	15,534	506,271	49,364	3,709	53,118	10,670	469,453
	1881	6,667	1,464	1,284	8,131	5,014	56,842	54,151	15,080	501,861	48,295	4,027	52,129	10,606	466,051
	1882	6,701	1,706	1,454	8,407	5,045	56,618	55,070	21,365	508,238	44,873	5,196	50,348	11,594	460,743
	1883	6,851	1,641	1,452	8,493	5,071	57,307	57,127	22,352	51,617	49,207	5,026	51,397	10,618	460,135
	1884	6,617	2,017	1,444	8,684	5,197	56,550	57,139	21,544	517,045	50,929	4,198	50,929	10,618	454,165
	1885	6,779	1,855	1,565	8,564	5,263	56,507	56,545	20,811	51,130	52,715	5,068	50,930	10,719	457,774
	1886	6,872	1,699	1,558	8,471	5,100	56,454	56,796	22,653	54,326	51,727	5,059	50,781	11,256	457,566
	1887	6,645	2,107	1,604	8,752	5,097	57,171	56,080	22,644	53,082	53,979	5,414	54,795	11,094	460,001
	1888	6,710	2,208	1,603	8,918	5,077	56,906	56,118	22,590	51,116	53,868	4,818	53,185	12,006	459,720
Gloucester:—  Area, 451,120 Acres.	1879	5,634	1,500	1,214	7,134	5,326	50,748	48,597	22,701	41,236	24,690	2,907	15,881	4,807	368,118
	1880	5,716	1,320	969	7,035	7,214	49,991	47,806	18,196	39,203	25,396	1,835	10,074	4,112	355,864
	1881	5,705	1,276	947	6,981	7,806	49,951	48,158	19,189	39,214	26,594	2,215	10,095	4,472	348,017
	1882	5,747	1,356	970	7,103	7,745	49,743	48,303	22,023	34,546	33,270	3,029	23,570	4,165	345,219
	1883	5,662	1,366	1,000	7,028	6,407	49,546	48,793	20,951	34,334	35,585	3,047	25,519	4,406	343,277
	1884	5,781	1,219	1,100	6,999	6,471	49,558	48,550	21,550	35,407	35,267	3,480	25,516	4,745	355,580
	1885	5,794	1,411	1,119	7,215	6,504	49,503	50,295	23,635	40,284	37,481	4,127	27,089	4,094	356,775
	1886	5,841	1,500	1,202	7,341	6,541	49,556	50,158	24,696	41,153	37,119	4,694	28,935	5,021	361,465
	1887	5,859	1,600	1,217	7,466	6,796	49,637	50,407	25,418	41,101	38,510	4,796	31,118	5,121	365,073
	1888	5,797	1,519	1,268	7,316	6,596	49,697	50,484	24,435	44,713	39,361	4,932	33,363	5,266	363,132
Hereford:—  Area, 1,948,526 Acres.	1879	59,879	4,667	4,021	68,567	13,771	135,025	132,607	66,708	107,084	101,890	8,717	61,458	14,866	696,467
	1880	59,071	4,457	3,642	67,528	13,079	135,288	132,444	56,478	140,093	99,028	8,417	61,392	15,353	697,895
	1881	59,222	4,917	3,708	69,147	13,571	142,530	139,946	55,414	135,018	96,854	9,972	64,962	15,864	697,516
	1882	60,758	5,426	3,767	70,191	13,816	142,039	139,442	66,996	143,738	79,189	12,028	68,980	22,556	697,552
	1883	59,119	5,257	3,968	68,386	13,455	140,938	138,766	66,536	130,614	95,826	11,222	61,974	18,494	695,920
	1884	59,255	5,757	3,194	68,111	13,125	144,067	141,595	58,595	126,180	81,230	10,546	75,536	19,111	698,555
	1885	59,079	5,261	3,199	67,539	13,079	139,594	137,076	62,632	121,100	82,019	10,406	70,075	19,811	691,239
	1886	59,116	4,608	3,197	67,911	13,008	139,605	137,076	70,986	119,884	79,081	10,406	70,075	19,811	691,239
	1887	59,124	4,818	3,061	67,003	13,765	138,707	137,037	50,463	111,706	82,443	11,199	8,662	19,811	691,239
	1888	59,028	5,090	4,300	69,419	13,669	140,668	138,031	56,611	117,076	89,026	10,880	72,917	19,806	694,023
Leicestershire:—  Area, 179,063 Acres.	1879	59,025	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1880	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1881	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1882	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1883	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1884	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1885	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1886	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1887	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
	1888	59,047	1,696	1,111	71	894	59,025	59,025	47,555	59,025	16,736	4,696	59,025	5,096	716,880
Northampton:—  Area, 456,130 Acres.	1879	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1880	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1881	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1882	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1883	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1884	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1885	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1886	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1887	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1888	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
Northampton:—  Area, 456,130 Acres.	1879	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1880	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1881	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1882	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1883	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1884	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1885	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1886	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1887	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
	1888	6,076	1,388	1,226	7,464	4,897	55,598	55,136	21,805	48,255	52,766	6,427	55,545	4,770	506,041
Warwick:—  Area, 470,730 Acres.	1879	59,641	4,057	3,668	67,366	13,786	135,025	132,607	66,708	107,084	101,890	8,717	61,458	14,866	696,467
	1880	59,071	4,457	3,642	67,528	13,079	135,288	132,444	56,478	140,093	99,028	8,417	61,392	15,353	697,895
	1881	59,222	4,917	3,708	69,147	13,571	142,530	139,946	55,414	135,018	96,854	9,972	64,962	15,864	697,516
	1882	60,758	5,426	3,767	70,191	13,816	142,039	139,442	66,996	143,738	79,189	12,028	68,980	22,556	697,552
	1883	59,119	5,257	3,968	68,386	13,455	140,938	138,766	66,536	130,614	95,826	11,222	61,974	18,494	695,920
	1884	59,255	5,757	3,194	68,111	13,125	144,067	141,595	58,595	126,180	81,230	10,546	75,536	19,111	698,555
	1885	59,079	5,261	3,199	67,539	13,079	139,594	137,076	62,632	121,100	82,019	10,406	70,075	19,811	691,239
	1886	59,116	4,608	3,197	67,911	13,008	139,605	137,076	70,986	119,884	79,081	10,406	70,075	19,811	691,239
Worcester:—  Area, 470,730 Acres.	1879	59,641	4,057	3,668	67,366	13,786	135,025	132,607	66,708	107,084	101,890	8,717	61,458	14,866	696,467



TABLE 13.—SHOWING THE QUANTITY OF LIVE STOCK IN EACH YEAR FROM 1879 TO 1888, BY COUNTIES AND PROVINCES—continued.

## PROVINCES.

PROVINCES.	Years.	No. of Horses.			Horses and Asse.		No. of Cattle.			No. of Swine.		No. of Pigs.		No. of Sheep.	No. of Goats.
		Two years old and upwards.	One year old and upwards.	Under one year.	No. of Males.	No. of Females.	Two years old and upwards.	One year old and upwards.	Under one year.	One year old and upwards.	Under one year.	One year old and upwards.	Under one year.		
LEINSTER:  Area, 4,636,502 Acres.	1879	130,260	13,449	12,542	3,168	50,378	589,437	233,364	182,174	601,198	306,789	20,566	235,420	49,658	1,376,422
	1880	130,987	13,378	12,515	3,178	49,874	607,693	237,367	186,488	604,181	312,902	20,537	197,715	47,638	1,368,517
	1881	130,574	13,485	12,335	3,160	49,704	605,694	237,226	177,407	595,149	304,555	20,471	198,750	46,750	1,436,696
	1882	129,540	13,354	12,304	3,137	49,738	601,386	235,645	175,521	589,308	305,513	20,384	197,716	45,534	1,389,500
	1883	127,574	12,457	12,144	3,137	48,838	586,736	243,734	191,565	587,344	314,527	20,343	199,686	45,578	1,335,538
	1884	125,541	12,338	11,935	3,169	48,718	622,638	235,020	186,540	598,263	315,137	20,626	194,469	45,267	1,397,378
	1885	126,961	12,618	11,969	3,165	48,538	644,503	239,646	194,362	594,105	318,744	20,688	191,548	45,279	1,392,399
	1886	128,481	12,668	12,111	3,162	48,426	646,548	247,838	177,861	602,011	308,539	20,484	194,455	45,593	1,373,129
	1887	130,737	12,703	12,191	3,165	48,756	617,336	242,581	178,658	615,401	312,771	20,495	192,088	45,720	1,352,670
	1888	136,425	12,867	12,785	3,163	48,413	614,812	236,133	179,569	710,411	315,780	20,628	195,411	45,709	1,398,584
MUNSTER:  Area, 4,636,502 Acres.	1879	105,518	15,495	12,304	3,417	56,854	731,615	229,182	245,518	303,070	303,479	24,477	331,114	84,385	1,446,480
	1880	101,205	15,448	12,499	3,199	56,792	746,526	234,174	218,279	314,611	321,830	24,586	327,113	82,162	1,396,061
	1881	100,514	15,485	12,365	3,169	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1882	100,685	15,484	12,307	3,165	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1883	100,681	15,484	12,307	3,165	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1884	98,530	15,367	12,508	3,130	55,519	731,148	248,128	203,373	303,070	303,479	24,477	331,114	84,385	1,446,480
	1885	100,815	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1886	100,845	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1887	100,815	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1888	100,815	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
ULSTER:  Area, 4,636,502 Acres.	1879	122,448	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1880	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1881	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1882	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1883	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1884	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1885	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1886	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1887	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
	1888	122,474	15,780	12,415	3,472	55,558	618,960	216,554	268,468	307,847	173,626	31,674	250,415	71,874	1,584,961
CONNAUGHT:  Area, 4,636,502 Acres.	1879	100,518	15,495	12,304	3,417	56,854	731,615	229,182	245,518	303,070	303,479	24,477	331,114	84,385	1,446,480
	1880	101,205	15,448	12,499	3,199	56,792	746,526	234,174	218,279	314,611	321,830	24,586	327,113	82,162	1,396,061
	1881	100,514	15,485	12,365	3,169	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1882	100,685	15,484	12,307	3,165	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1883	100,681	15,484	12,307	3,165	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1884	98,530	15,367	12,508	3,130	55,519	731,148	248,128	203,373	303,070	303,479	24,477	331,114	84,385	1,446,480
	1885	100,815	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1886	100,845	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1887	100,815	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079
	1888	100,815	15,485	12,479	3,162	56,478	746,367	235,066	216,786	310,087	320,425	24,577	315,563	82,444	1,416,079

## TOTAL OF IRELAND.

IRELAND.	Years.	No. of Horses.			Horses and Asse.		No. of Cattle.			No. of Swine.		No. of Pigs.		No. of Sheep.	No. of Goats.
		Two years old and upwards.	One year old and upwards.	Under one year.	No. of Males.	No. of Females.	Two years old and upwards.	One year old and upwards.	Under one year.	One year old and upwards.	Under one year.	One year old and upwards.	Under one year.		
TOTAL OF IRELAND:  Area, 18,000,000 Acres.	1879	422,290	62,425	57,577	12,633	168,819	3,395,467	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1880	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1881	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1882	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1883	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1884	422,128	62,419	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1885	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1886	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1887	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828
	1888	426,777	62,479	58,681	12,640	168,317	3,414,381	1,132,515	1,612,536	3,570,221	1,868,228	142,846	1,612,536	279,347	1,376,828



TABLE 14.—SHOWING, by COUNTRIES and PROVINCES, the Total Area under POTATOES in 1883, and the Extent in Statute Acres under each description of that crop.

COUNTRIES.	Total extent under Potatoes in Statute Acres.	GENERAL NAMES OF THE DIFFERENT KINDS OF POTATOES PLANTED.													
		Champion	Flourish	Starry Rose	White Rose	Magnum Bonum	South Down	Kent	Ordnance	Brown Rose	American Rose	Leather Gown	American White	Red Rose	Green Top
ARLON, . . .	44,487	21,729	1,509	7,422	580	3,135	314	335	1,410	1	222	+	+	+	7,650
ARMAGH, . . .	27,568	10,070	3,847	3,420	205	1,032	107	225	11	280	+	+	+	+	164
CALLOW, . . .	5,185	3,189	548	56	30	30	144	107	+	+	+	+	+	+	8
CATY, . . .	37,518	24,657	2,748	385	247	50	180	174	+	17	+	+	+	+	12
CLARE, . . .	23,645	10,843	2,368	454	974	+	442	580	+	1	3	780	+	+	528
COO, . . .	64,315	30,763	5,979	242	635	3	154	240	+	+	8	+	+	+	602
DONNELL, . . .	45,179	25,192	3,817	1,800	2,309	1,364	479	345	1,370	163	+	202	+	+	2,118
DOW, . . .	42,514	20,731	2,283	6,474	809	7,547	613	589	1,728	+	364	+	+	19	2,698
DUBLIN, . . .	6,387	4,722	484	30	291	211	345	2,154	+	17	+	+	+	+	61
FERRIS, . . .	18,763	12,318	1,719	825	394	30	147	125	+	1	4	+	+	30	13
GALWAY, . . .	44,889	20,713	2,904	151	1,310	6	300	220	+	+	1	+	19	+	677
KERRY, . . .	26,708	20,816	1,366	190	634	+	140	168	+	48	18	46	+	+	908
KILKENNY, . . .	8,762	7,698	363	35	104	13	50	243	+	+	23	+	+	+	8
KILMUCK, . . .	17,366	10,503	1,945	19	47	8	889	85	+	+	81	+	+	+	44
KILPATRICK, . . .	16,880	10,788	1,441	75	268	8	402	269	+	+	40	+	+	+	7
LEININ, . . .	27,640	15,030	1,408	468	863	2	169	94	1	28	+	+	+	3	31
LEININ, . . .	20,835	10,147	2,108	78	590	+	86	73	+	+	27	+	+	4	87
LOUGHBOROUGH, . . .	25,267	15,217	1,619	4,027	1,088	1,336	458	264	828	858	246	+	265	71	2,261
LOUGHBOROUGH, . . .	21,389	8,563	1,074	162	236	21	173	48	+	73	+	+	+	+	3
LOUTH and DOWN, County of, . . .	11,565	8,819	1,718	453	324	635	174	230	+	17	+	+	+	+	184
MATH, . . .	40,400	20,861	3,020	585	458	+	253	170	+	+	8	+	+	+	1,080
MATH, . . .	11,794	8,723	543	152	180	48	127	300	+	100	+	+	2	+	80
MIDLAND, . . .	21,227	17,886	2,100	547	317	42	171	69	+	2	+	+	+	+	2
QUINN, . . .	16,368	14,866	1,068	20	30	+	400	66	+	11	+	+	+	+	8
ROCKFORD, . . .	20,500	10,488	2,470	136	461	12	211	181	+	+	+	+	+	+	800
SLEO, . . .	11,286	10,574	1,740	267	131	8	162	158	+	+	+	+	+	+	180
THURLOW, . . .	22,525	20,522	2,566	120	979	2	900	111	+	18	4	+	21	+	79
TRIN, . . .	42,480	20,697	3,407	4,631	1,423	780	321	160	11	256	66	+	2	81	1,396
WATERFORD, . . .	14,868	10,405	829	60	60	3	147	81	+	+	+	+	+	1	47
WATERFORD, . . .	13,868	8,709	1,541	60	177	30	384	285	+	8	+	+	2	11	4
WEXFORD, . . .	22,794	15,518	1,128	30	336	11	1,442	440	+	11	+	+	+	+	77
WINDSOR, . . .	19,729	8,622	422	20	87	30	300	541	+	4	+	+	+	+	15
PROVINCES.															
LEININ, . . .	163,574	120,472	11,533	1,897	2,075	374	2,735	4,982	+	332	+	+	4	18	608
MIDLAND, . . .	136,630	102,302	15,004	1,804	2,938	7	1,314	825	+	47	61	808	+	28	2,600
QUINN, . . .	307,777	205,285	15,009	20,363	10,080	15,838	2,216	1,297	3,660	2,879	1,038	+	229	141	10,113
ROCKFORD, . . .	163,785	120,370	13,848	1,347	2,035	26	1,848	782	1	29	+	39	+	54	2,220
Total of Ireland, 1883, . . .	804,560	619,696	56,529	33,690	17,716	56,665	6,540	5,594	3,630	3,017	1,725	876	548	179	85,230
Percentage in 1883, . . .	100-0	76-1	7-0	4-3	2-2	7-1	1-1	1-0	4-2	3-7	2-1	2-2	0-7	0-2	10-5
Total of Ireland, 1887, . . .	796,330	624,251	58,884	34,165	18,657	11,503	6,768	7,084	3,632	2,876	1,427	614	263	173	10,122
Percentage in 1887, . . .	100-0	78-6	7-4	4-4	2-3	1-4	1-2	1-0	4-5	3-6	1-9	0-8	0-3	0-2	12-7







TABLE 15.—SHOWING, by POOR LAW UNIONS, the Total extent in STATUTE ACRES under POTATOES in 1888, and the extent under each description of that Crop—continued.

POOR LAW UNIONS.	Total extent under Potatoes in statute acres.	KINDS OF POTATOES.															
		Champion.		Plover.		Saverley.		White Rocks.		Mignon.		South Down.		Kings.		Caulis.	
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Gloucester, ..	6,730	3,852	218	92	101	33	131	59									7
Gloucestershire, ..	2,348	3,008	312	305	785	22	47	28							280		10
Gloucestershire, ..	2,711	3,002	307	124	22		28	29									31
Gloucestershire, ..	4,952	4,357	208	32	42		12	14									1
Gloucestershire, ..	2,479	2,009	259	7	15		8	44							10		
Gloucestershire, ..	2,207	2,701	109	27	37		12	3									45
Gloucestershire, ..	4,814	2,912	221	201			24	24									1,153
Gloucestershire, ..	2,028	2,434	208	1	8		116	21									10
Gloucestershire, ..	3,319	1,207	160	31	46		26	22							20		20
Gloucestershire, ..	2,272	3,054	153	10	2		6										
Gloucestershire, ..	6,779	2,432	451	31	116		32	32									40
Gloucestershire, ..	1,800	1,548	91				2	2									40
Gloucestershire, ..	4,000	2,707	328	3	22		17	17							14		20
Gloucestershire, ..	2,001	2,333	494	120	271		100	26							220		437
Gloucestershire, ..	2,500	2,300	271	23	9		3	3									21
Gloucestershire, ..	2,100	2,330	128	1,129	127	245	82	27	350								213
Gloucestershire, ..	2,200	2,310	100	30	300	27	22	48							79		20
Gloucestershire, ..	2,204	2,714	498	1,045	435	368	88	64							241		66
Gloucestershire, ..	2,354	2,003	723	23	37		19	17							8		22
Gloucestershire, ..	10,014	4,008	611	2,164	519	1,200	129	48	1,027						25		250
Gloucestershire, ..	2,343	2,398	266		7		4										2
Gloucestershire, ..	4,332	2,250	166	165	262		1	20							1		10
Gloucestershire, ..	6,400	4,238	432	89	122		11	26									120
Gloucestershire, ..	2,070	4,212	161	322	218	552	34	55							1,200		174
Gloucestershire, ..	2,200	4,402	432	20	120		4	14									
Gloucestershire, ..	4,711	4,300	367	2	25			16									
Gloucestershire, ..	2,500	4,704	800	121	679		87	125							21		102
Gloucestershire, ..	2,261	4,475	221	14	69		9	17									4
Gloucestershire, ..	10,300	2,300	840	1,700	321	402	171	82							173		1,110
Gloucestershire, ..	4,200	3,000	27	1	20		8	19									10
Gloucestershire, ..	2,200	4,300	400	141	32		9	12							1		8
Gloucestershire, ..	4,719	2,701	27	22	35		2	30									13
Gloucestershire, ..	2,212	4,215	270	418	327	347	42	1							120		207
Gloucestershire, ..	2,000	2,100	77		6			14									
Gloucestershire, ..	2,740	2,484	205		6												
Gloucestershire, ..	2,421	4,790	320	60	134		8	44									20
Gloucestershire, ..	2,000	5,017	720	300	65	22	22	24							21		43
Gloucestershire, ..	2,770	3,123	312	10	10		119	21									20
Gloucestershire, ..	2,000	2,000	420	16	79		20	20									10
Gloucestershire, ..	4,072	2,000	420	7	24	10	107	43									2
Gloucestershire, ..	2,000	2,332	241	18	38		5	12									8
Gloucestershire, ..	2,000	1,010	120	25	47		16	26									2
Gloucestershire, ..	2,271	2,012	445	12	45		20	25									2
Gloucestershire, ..	4,330	2,202	440	26	66		32	17									47
Gloucestershire, ..	7,744	2,800	420	17	27		202	16									2
Gloucestershire, ..	11,200	2,785	740	300	100	420	100	70									251
Gloucestershire, ..	2,251	2,007	207	1,414	45	5,000	54	318									275
Gloucestershire, ..	2,000	2,000	400	65	27		1	4									
Gloucestershire, ..	2,000	2,000	715	655	425	26	21	9							23		400
Gloucestershire, ..	2,000	2,000	180	8	30		24	18									6
Gloucestershire, ..	2,000	2,232	694	23	700		206	71									14
Gloucestershire, ..	2,144	2,000	200	17	20		20	8									20
Gloucestershire, ..	2,000	2,119	74	7	70		89	101									8
Gloucestershire, ..	2,000	2,000	210	11	60		75	105									5
Gloucestershire, ..	2,000	2,000	310	10	10		8	1									2
Gloucestershire, ..	2,100	2,100	330	10	32		31	15									1
Gloucestershire, ..	4,200	2,779	313	10	18		22	30									43
Gloucestershire, ..	2,251	1,253	230	43	200		70	24									
Gloucestershire, ..	2,000	2,203	143	3	10		17	34									15
Gloucestershire, ..	2,107	4,760	217	20	20												161
Gloucestershire, ..	2,017	1,830	33		6		1	10									301
Gloucestershire, ..	2,114	4,000	720	170	79		3	60									14
Gloucestershire, ..	7,104	4,200	307	300	215		370	80									403
Gloucestershire, ..	4,000	2,000	200	112	301		130	92									120
Gloucestershire, ..	4,000	2,700	367	16	54		8	10									60
Gloucestershire, ..	11,700	10,000	470	60	22		220	62									100
Gloucestershire, ..	2,247	2,000	171	4	15			8									20
Gloucestershire, ..	2,000	4,000	300		8		3	1									
Gloucestershire, ..	2,000	2,000	500	10	80		15	32									10
Gloucestershire, ..	2,201	4,000	317	80	23		40	40									10
Gloucestershire, ..	2,000	2,114	220	45	311		80	114									8
Gloucestershire, ..	2,200	1,830	207	20	27		16	55									27
Gloucestershire, ..	2,000	2,000	307	80	122		24	40									31
Gloucestershire, ..	2,420	2,201	330	6	41		11	14									8
Gloucestershire, ..	2,340	4,675	540	23	181		6	142									10
Gloucestershire, ..	2,000	2,000	212	8	4		85	10									
Gloucestershire, ..	2,000	2,010	200	3	11		48	17									8
Gloucestershire, ..	7,200	2,000	300	89	113		48	13									20
Gloucestershire, ..	2,204	4,400	277	34	74		201	20									20
Gloucestershire, ..	2,200	2,000	200	1	25		21	3									20
Total, ..	200,000	231,420	24,420	23,800	27,710	16,000	2,140	2,204	3,500	3,017	1,720	270	440	170	80	10,000	



TABLE 16.—SHOWING, by COUNTIES, the average rate of Produce per statute acre of the principal descriptions of POTATOES planted in Ireland in 1888.

COUNTIES.	GENERAL NAMES OF THE DIFFERENT KINDS OF POTATOES PLANTED IN EACH COUNTY.															
	Champion.	Foresters.	Starry Eye.	White South.	Magnum Bonum.	Scott's Wonder.	Kemp.	Cythere.	Irish Wonder.	American Wonder.	Leather Gait.	American Wonder.	Red Wonder.	Green Top.	Colony.	Golden Wonder.
ANTRIM, . . .	63	55	60	53	69	48	54	57	47	56	•	•	•	•	51	•
ARMAGH, . . .	63	53	57	59	64	48	47	59	•	48	•	•	•	•	•	•
CARLOW, . . .	54	51	•	•	111	69	74	•	•	•	•	•	•	•	•	•
CATY, . . .	54	53	48	48	59	41	69	•	•	•	•	•	•	•	•	•
CLARE, . . .	69	59	56	57	•	58	53	•	•	47	67	•	•	•	•	•
COCK, . . .	65	69	56	51	•	44	53	•	•	•	•	•	•	•	•	•
DONNELLY, . . .	52	45	45	47	69	43	44	•	59	57	•	50	•	•	•	53
DOW, . . .	69	53	56	51	64	55	63	57	•	50	•	•	•	•	•	•
DUGAN, . . .	109	89	61	53	67	62	71	•	•	•	•	•	•	•	•	•
FERMANAGH, . . .	53	52	48	56	•	44	52	•	•	•	•	•	•	•	•	•
GALWAY, . . .	72	65	57	61	•	54	58	•	•	•	•	47	•	69	•	•
KERRY, . . .	74	69	56	69	•	64	66	•	•	•	57	•	•	•	•	•
KILBARR, . . .	71	54	48	69	71	67	66	•	•	•	•	•	•	•	•	•
KILKENNY, . . .	65	57	54	53	•	61	72	•	•	67	•	•	•	•	•	•
KING'S, . . .	79	70	54	64	79	63	66	•	•	57	•	•	•	•	•	•
LIMERICK, . . .	55	65	47	44	•	44	45	•	•	•	•	•	•	•	•	•
LORRAINE, . . .	79	64	76	50	•	•	•	•	•	•	69	•	•	•	•	•
LONDONDERRY, . . .	69	54	56	51	50	44	43	56	51	•	•	49	57	•	47	•
LOVEFORD, . . .	74	66	62	66	66	64	71	•	•	•	•	•	•	•	•	•
LOUTH and THAMES, County of Down.	79	70	67	57	73	73	55	•	•	56	•	•	•	•	•	•
MALO, . . .	70	64	65	62	•	69	69	•	•	•	•	•	•	•	•	•
MELM, . . .	59	56	57	54	62	46	57	•	•	48	•	•	45	•	•	•
MURRAY, . . .	67	56	47	47	59	57	57	•	•	•	•	•	•	•	•	•
QUEEN'S, . . .	61	76	65	64	•	73	56	•	•	•	•	•	•	•	•	•
ROCKFORD, . . .	69	52	51	51	60	56	57	•	•	•	•	•	•	•	•	•
SLIGO, . . .	61	57	62	48	74	65	46	•	•	•	•	•	•	•	•	•
TIPPERARY, . . .	73	72	57	69	65	52	59	•	•	69	•	•	74	•	•	•
TIMON, . . .	59	55	53	48	65	49	•	•	55	•	•	•	•	•	•	•
WATERFORD, . . .	71	59	•	54	51	59	41	•	•	•	•	•	•	•	•	•
WEXFORD, . . .	65	51	47	69	56	50	46	•	•	51	•	•	54	•	•	•
WICKFORD, . . .	79	69	59	55	65	57	50	•	•	•	•	•	•	•	•	•
WICKLOW, . . .	55	59	54	49	65	45	52	•	•	59	•	•	•	•	•	•



## OBSERVATIONS

OF THE

DISTRICT INSPECTORS OF THE ROYAL IRISH CONSTABULARY AND OF  
THE SERGEANTS OF THE METROPOLITAN POLICE,

WHO ACTED AS SUPERINTENDENTS OF THE AGRICULTURAL STATISTICS;

IN REPLY TO A CIRCULAR DATED 29TH OCTOBER, 1888, ON THE PROBABLE CAUSE TO WHICH THE GOOD  
OR BAD YIELD OF THE VARIOUS CROPS IN EACH OF THEIR DISTRICTS MAY BE ATTRIBUTED.

## PROVINCE OF LEINSTER.

PROVINCE OF  
LEINSTER.

**CARLOW COUNTY.** *Boymedmore D.*—The yield has not come up to what was at first expected, at the same time the large amount of snow obtained will in a great measure compensate for the lesser yield. I should say that barley has been the most successful crop in this district. Potatoes, though not as good and plentiful as last season, may be described as satisfactory, and I have heard of little disease. The root crops are good. Needless to say the inferior yield is attributable to the heavy summer rains. *Carlow D.*—All who have had good crops say the early sowing has given to them the advantage, and that a bad yield—the land otherwise being equal—may usually be traced to a late sowing of crops. The general opinion is that crops should be put in as early as possible.

**DUBLIN COUNTY.** *Ballinagheen D.*—There having been a very fair harvest this year, I attribute the cause to the fine season which came on in September. The defective potato crop has been caused by the abnormal rainfall in July. *Cleary D.*—The inferior yield in grain crops is, in my opinion, due to the excessive rain during the summer season. The other crops are, I believe, up to the average, and have not apparently been affected by any cause. *College-street D.*—There has been an increase in the hay crop this season, owing to the heavy rain during the months of June and July. There was no change in the other crops, except potatoes known as champion, which were not as good as other seasons, from what I can learn, owing to the seed getting old. *Dundrum D.*—Potatoes scarce in quantity and bad in quality; wheat, oats, and barley scarce plentiful but the grain bad. Hay—plentiful crop but bad quality generally, being badly sown. The wet season was cause of the bad yield. Turnips and mangolds good; wet season favourable for them. *Kilgobbin D.*—No complaint of any crops, except the wheat crop, that is not up to the general average, which is attributed to the previous dry season and the grub this season. *Liscon D.*—There are no special features connected with the harvest in this district. All the crops are abundant and well sown. The early hay crop was rather injured by the wet, but it has been, in some places at all events, more than compensated for by a large second crop and the finest "after grass" I have ever seen. The potato crop is good and abundant, and though I have heard complaints of disease, I have seen no evidence of it. *Rathmines D.*—There is a vast increase in the average produce of the different crops in consequence of the favourable season.

**KILDARE COUNTY.** *Ally D.*—The crops in this district are generally fair, but would have been a great deal better if it had not been for the incessant rain during the early part of the harvest. *Kildare D.*

—The crops in general are very good in this district; and, owing to the fine weather, the yield of corn, hay, potatoes, and turnips, &c., will be plentiful. *Foss D.*—The good yield of the various crops is mainly due to the saving period of fine weather in September and October, which converted what looked like a very poor harvest into a good one. *Robertstown D.*—In my opinion the small yield is owing to the past wet summer.

**KILKENNY COUNTY.** *Callan D.*—The crops as a rule have been good. The month of May being moist was favourable for hay. Oats also good for same reason. Wheat bad on account of summer rain. Potatoes also affected by rain. *Cantlowree D.*—The small yield of potatoes, barley, and mangold swart is partly attributed to the cold, wet season. In dry, protected land the yield was much better than in the hilly portion. Other crops, such as hay, which was well sown and generally in time, is plentiful, and can be obtained at moderate prices, which, at the same time, pay the growers fairly well. Turnips are good and can be had at fair prices. Of course all crops sown early have had the advantage. *Jacksonstown D.*—The returns of miles of average produce are very different from different parts of this district. In localities where the soil is dry and light the crops have been good, while in wet, heavy land they have been, to a great extent, spoiled. The extraordinarily wet summer has been the cause of this; the dry harvest weather succeeding having saved the crops on light lands, but not coming sufficiently early to do so on heavier soils. *Fulberry D.*—All crops in this district are above the average in quantity, but some are deficient in quality—viz., hay, from the unsettled weather in June and July, the saving time, and barley from wet weather just before harvest. The potato crop, at one time, promised to be very exceptionally good, but wet weather caused widespread disease, which, however, was checked by a favourable change before very serious loss had taken place. *Fultown D.*—Wheat is a bad crop this year owing to the severe and wet season, and oats suffered from a like cause. Straw is abundant, but the grain is not up to the average, from the effects of high winds at the time the grain was forming. Potatoes are generally a good crop in this district, owing to the continued drought in the harvest time, which ripened the tubers and kept them sound. Turnips and mangolds are not good crops; they were very luxuriant in top, but there was not sufficient warmth to swell the roots when forming. *Thomastown D.*—On the whole this has been a good harvest. There was no distinct failure in any crops, and some of them were much above the average. Hay was one of the best crops known, but some of it was indifferently sown, owing to the early wet season. The grain crops, though late, were very good. Wheat



affected with smut here and there but not generally. Barley and oats splendid and straw good, and all well saved. Potatoes a good crop and not affected so much with disease as in other places. Other root crops fair.

**Essex County. Eldersley D.**—Generally speaking, I find the hay crop much larger this year than last; but the wet weather prevented it being saved so well. The grain crops are not so good owing to the wet harvest. The potato crop is better than last year, owing, I believe, to the favourable weather in September. Turnips, mangolds, &c., are abundant, in consequence of the moist season. **Ferbane D.**—The good yield of the various crops throughout this district is due to the favourable weather throughout the harvest time. **Parsonstown D.**—Good yield of potatoes in consequence of dry September and October. **Sherone D.**—The unusually fine weather we had in September and October has caused the crops in the district to be much better than they were for years before. **Tullamore D.**—The crops are very good in this district, over the average as far as I can learn, the early portion of the season being especially favourable to their growth. During the early harvest, however, a good deal of hay and corn was injured by the incessant rains, but owing to the favourable change in the weather during the past two months, nearly all has been safely deposited in the buggards. The root crops are extremely good.

**Longford County. Ballygallon D.**—The yield of the various crops for the several electoral divisions is considered fair, and equal to the average of previous years. **Granard D.**—Owing to the damp season the potato crop has decreased. The increase in the turnip and other green crops, also meadow, is, I believe, due to the same cause. **Longford D.**—The good yield in the hay crop this year may be attributed to the very favourable season and weather, the crop, however, of it as well as of oats, which was so abundant and good, was much injured by the rains, so prevalent throughout the season for saving the crops; no other cause can be assigned for the potato crop being so bad this year.

**Louth County. Ardee D.**—Owing to the heavy rains which materially injured the crops before they were cut, the yield of the various crops was bad. A good deal of the hay crop was destroyed owing to the want of fine weather to enable the farmers to save it. However, the crops on the whole afforded an average yield. **Drogheda D.**—As regards the average rates of produce this harvest, there appears little to comment on beyond the fact that the wetness of the summer has damaged the hay crop, and to a lesser extent all corn crops. Potatoes have also suffered, but not to a serious extent, and on the whole the yield has been sufficiently abundant in all descriptions of crops raised. **Dundalk D.**—The good yield this season may be attributed to fine weather and good cultivation.

**Meath County. Ashby D.**—The grain crops in general were poor in this district; the season being so wet the straw grew abundantly but the ear did not fill. Hay was a very good crop, but in many cases badly saved owing to bad weather. Potatoes were an average crop. It is a well known fact in this neighbourhood that where seed and imported seed was used the yield was good, both in cereals and green crops, and the indifferent crops in some parts of the district are in great measure attributable to the use of old and worn-out seed. **Dunsinkham D.**—On the whole this is considered a "good" year in this district. It is of course an essentially cattle-fattening district, and the grasses one and all have had an unexceptionally good year. First cutting of first and second crop of hay good. All other hay decidedly bad. Oats on poor land very good—in other soil fair, generally spoiled by a second growth. Root crops on the whole

satisfactory. **Kells D.**—I believe all the crops have been fairly good. The potatoes are perhaps not so good as in other years, which I believe is caused by the wet season there has been. **Nasau D.**—I attribute the moderate yield of crops to the quantity of rain that fell in the months of July and August. But for this circumstance the crops would have been considerably better in quantity and quality. **Slieve D.**—The good yield of hay, oats, and green crops may be attributed to the fine weather obtained in the early portion of the season, and the quantity of rain that afterwards fell; the latter injured the potato crop to some extent, particularly in low-lying land or bog. Some heavy crops of oats and barley were injured by the rains. The continued moisture has produced a large supply of straw. **Trillick D.**—Hay is a good crop, some badly saved, owing to wet weather. Oats a good crop, some of it lodged early. Potatoes fair, some of them very wet. Other green crops good.

**Queen's County. Abbeyleix D.**—The state of the crops in this district was as follows:—I. Hay.—The crop has been most abundant; but, except what was saved early, suffered in quality from the continuous wet. II. Potatoes.—An abundant crop, but the quality not so good as in previous years owing to the wet season. III. Root Crops.—Turnips and mangolds abundant and of good quality. IV. Cereals.—Wheat very little grown and much injured by the wet; barley has not suffered so much and is a good crop. Oats have not done well, the ear not having filled for want of warm weather, and a great quantity of it lodged sustaining serious damage. Straw of all kinds abundant. Grass (pasture) has been plentiful and good. **Ballymore D.**—In my opinion the harvest has been a very good one indeed, the yield a plentiful one and all crops well saved, except a good deal of early hay, say one-fourth or one-fifth which was injured by the rain after being cut. The potatoes are although a good crop not so plentiful as was expected. **Maryborough D.**—As far as I can ascertain the yield of the various crops is above the average of many years past, and may be attributed to the favourable season. Approaching harvesting time farmers were threatened with too much wet, and some heavy corn crops were lodged, but this was succeeded by a long spell of fine dry weather, during which there was no difficulty in gathering in the corn crops. In some places I hear it said that potatoes are not the same heavy crops they have been of late years, still the complaint is not general, and they are so far very free from disease. Turnips, mangolds, and cabbages, while a great improvement upon last year, no doubt would have been heavier crops had there been more heat in September and October. **Mountbush D.**—The bad yield in potatoes, turnips, and mangolds in the electoral divisions in this district is owing to the wet season. The hay is a plentiful yield owing to the moist season. As regards the wheat, oats, barley, &c.—they are a better yield than last year owing to the moist season.

**Wick County. Ballynacorney D.**—Hay has been a very abundant crop, but some of it not well saved because of the rain. Potatoes a fair crop, but some of them have got touched by damp-rot. Oats not a good crop, not having had favourable weather. Turnips, a very fair crop, as weather was favourable for them. Mangolds a good crop. **Cossifford D.**—The indifferent crop of potatoes is due to the wet summer. There have been some good crops of "champions" on high lands, but those on low-lying lands were very poor. White oats on poor land were good, but this crop on rich soil was beaten flat by the heavy rains, and was in consequence a failure. Root crops have been a success (more especially on high lands), owing to the wet. Quantities of late hay were destroyed by the wet, but there was a very plentiful crop. **Delvin D.**—There has been a heavy crop of hay this season; but in consequence of



PROVINCE OF  
LEINSTER.

the wet weather in the month of July, a considerable quantity was badly saved. The potato crop is not nearly so good as last year, owing also to the wet weather, and is below the average. Oats have been a fair crop—would have been above the average were it not for the great rain in July. Turnips and mangolds also fair. *Killegorran D.*—The grain crops are all very fair; they would have been much better had weather towards harvest time been drier. Potatoes not so good as last year, owing to wet, but turnips and mangolds good from same cause. *Moss D.*—The general crops throughout this district have returned a fair yield. The potato crop has not been as good as usual, owing to the wet season. The hay crop had been very good, but was more or less injured by the wet season also. On the whole, the people are fairly satisfied with the general return of their crops. *Meagher D.*—I believe there has been an average yield of all crops.

**WEXFORD COUNTY.** *Beniceworth D.*—The crops in this district have this year been most plentiful and good. All hay cut before and after July was saved without loss; all cut in July was lost. This crop is better than it has been for years. The oat and potato crop have likewise surpassed those of previous years, and, I am informed, are better than any for fifteen years. These are the three staple crops, and farmers consider the season to have been perfection. *Geary D.*—The crops this year are a good average, chiefly owing to favourable weather. *New Ross D.*—The produce of several crops varies considerably in that portion of the county of Wexford, more especially in that portion of it which comprises the District of New Ross, which includes various soils differing materially in composition; that about the neighbourhood of Ballywilliam being very poor and wet, whence some fertile tracts exist along the valley of the river Barrow, extending towards Ardlamstown and Danganoo. This year the barley crop predominated, but the damp summer did not serve it; and although there was an abundance of straw, yet I believe the grain produce was indifferent, as in several places it was lodged, and a second growth took place. Oats and wheat appeared to be all right on high lands, but the farmers, as a rule, do not speculate on the latter crop. Potatoes,

especially charrington, appeared to be flourishing; but the blight disease came on them very soon this year in comparison to others, and the produce was not what might have been expected. Hay was a great success, and where it could be saved must prove a valuable crop to the farmers this year. *Faythson D.*—The crops in general in this district are above an average this year, except potatoes—they are all better than last year. Scarce is very abundant. The quality of the crops is not so good as usual, in consequence of the late harvest and excessive wet. *Wexford D.*—The good or bad yield of the various crops in this district is attributable to many causes, but principally to the good or bad state of agriculture prevailing on different farms, the weather, and the seed used. Farms well tilled and manured generally produce a good yield of all crops. On light sandy soil the heavy rains of June and July had a very salutary effect on all crops, which were brought to maturity by the fine weather in September. The seed used by many farmers, particularly potatoes and grain, is in many cases of an inferior quality, and consequently produces a bad yield.

**WICKLOW COUNTY.** *Bray D.*—This year has been a very good one for all crops, owing to the favourableness of the season. Plenty of necessary moisture in the early part of the year causing great growth, followed by fine dry ripening weather, which brought everything to maturity; in fact the land was teeming with produce, and the harvest-time enabled hay and corn to be saved and secured. *Droghda D.*—The crops in this district this year are of an average yield. *Finchely D.*—The crops in this district were considered to have been very fair, and above the average of former years. The oat crop was very heavy and the grain large and sound. The potato crop does not appear to have suffered from the wet weather that prevailed during the months of July and August, as was feared would be the case. Turnips and mangolds are a good crop, and the roots sound. *Wicklow D.*—The crops in this district have been very good this year, much better than for several years. The good yield is attributed to the light soft rain that fell so abundantly during the growing season, and to the absence of any long drought.

## PROVINCE OF MUNSTER.

PROVINCE OF  
MUNSTER.

**CLARE COUNTY.** *Ballyvaughan D.*—Except in a few places where the hay crop was very late, all produce in this district is above the average rate, as the season has been exceptionally fine especially during harvest. *Ennis D.*—The rain in the early summer produced a blight among the potatoes, which was prevented by the very fine late summer and autumn from materially affecting the crop. The propitious weather has resulted in an enormous amount of hay being securely saved. The weather has entirely been the cause of a plentiful crop of potatoes and cereals (not extensively sown in this locality). From the same cause the root crop, even on bad land, is also unusually fine. *Statisticians D.*—The principal crops in this district are hay and potatoes. The former is an unusually good one, owing to excellent growing weather in spring and early summer. Some of it was spoiled in saving, but on the whole the result has been excellent. Potatoes are a fair average crop. They were somewhat interfered with by wet weather in the end of summer, still they are fairly good. *Killegorran D.*—In my opinion all crops this year are average, and in some instances more than average. For instance the hay crop is over the average. Potatoes are not so good a crop as last year. The corn crops are by far a better crop than last season. The favourable season is the principal cause of good yield. *Kilgobbin D.*—So far as I can see the general yield this year was quite up to and in some cases above

average. The fine autumn contributed largely to the satisfactory yield in cereals, but the dry weather did not come soon enough to benefit the potato crop, which in poor mountainous parts of the district was lighter and inferior in quality to that of last year. The hay crop was unusually heavy, but much of it was damaged in the saving. Wheat and barley are scarcely grown now, as the farmers cannot make any profit on them owing, they say, to foreign competition. *Kilrush D.*—There is a fair average of the several crops this year. I am of opinion that the potato crop is not so good as last year owing to the wet season we had this year. The hay crop is good but not so well saved as in former years. Turnips and mangolds are very good owing to the moist season. *Singlebridge D.*—It is admitted on all sides that the crops this year were far above the average; the hay crop was especially good. The wet season seems to have favoured the harvest much, as the soil in this neighbourhood is of a dry nature, principally composed of limestone. *Tulla D.*—I beg to state that the potato and turnip crop in this locality are considerably below the average, caused by the damp season. All other crops are good.

**COCK COUNTY, E.R.** *Ballyvaughan D.*—The average yield of the various crops throughout this district this year has been very fair. A quantity of hay and corn was damaged by the very wet weather, but for this



the yield would have been very good. *Cork, North, D.*—In my opinion the good yield, but defective quality, of the crops in this district is due to the bad weather which prevailed in spring and early summer, so that the later crops, which benefited by the subsequent good weather, did not suffer so much as the hay, &c. *Cork, South, D.*—The produce of the various crops in the several parts of this district was a fair average yield; but the quality and value suffered materially from the wet summer, which injured hay very much, making it, in many instances, unfit for feeding purposes. Turnips and mangolds are a good crop, and promise an abundant yield; but the potato crop, though fair in quantity, is very inferior in quality, being in many cases of a spongy nature and bad for food. All the grain crops suffered in quality from the wet weather, particularly barley; but on the whole the farmers will have a fair return from the several crops in this district. *Ferry D.*—The probable cause of the bad return of the various crops this year, particularly the corn and potato crops, is owing to the heavy downpour of rain which came in July last. *Kesh, D.*—I think the harvest in this district to be a good one and beyond the average. I think this may be accounted for by the very favourable weather during the past three months. *Kinsale D.*—The crops in this district in the early part of the year promised to be very abundant. However, the rain, which came in July and August, affected seriously all crops. The grain crops are very fair, although, owing to the wet of last, the quality is injured. The potato crop is not as good as last year; this is in consequence of the stalks having decayed before the potatoes had ripened. There is no appearance of blight. The green crops have not turned out as well as was expected, the roots have not grown well during the late months. I would say that all the crops are on average, and the harvest has turned out very satisfactory. *Maline D.*—So far as I can ascertain the crops have been above the average, owing more to the weather than to any effort on the part of the farmers to improve their condition by working up their farms. There is no doubt that far less labour is now employed by the farmers as compared to former times, though there are men wanting employment everywhere. *Middleton D.*—The general produce has been excellent, good and plentiful. Hay crop well saved. Potatoes and oats well saved. Barley beyond the average. Root crops very fine. Weather was favourable on the whole. *Middleton D.*—The crops this year in this district have generally yielded a good average. The principal grain crop is oats. In consequence of the wet season there was too much straw. The grain was plentiful, but somewhat damaged in quality. Wheat also suffered much from the summer and early harvest rains, and is a bad crop. Hay is a very heavy crop; but the best kinds suffered from the rain. In the mountainous districts the hay cut in August and September was well saved. Potatoes are a good crop in dry good lands; but in wet or boggy land they are bad. Both in quantity and quality potatoes are nothing like what they were last year. Turnips are considered a bad crop, and this is attributed to the heavy rains and cold of the early summer. There is no barley sown in the district. *Queretown D.*—I believe the harvest this year is a good one, and the yield above the average. The wetness and absence of heat during the summer months gave rise to apprehensions that the harvest would be a bad one; but the continued fine weather in the autumn repaired the damage to the crops caused by the inclement weather in summer. The hay crop was abundant. The early meadows were generally well saved, and the later meadows were much damaged and costly to mow. *Foughal D.*—As far as I am able to ascertain the crops are a good average. The return of grain generally is above the average, and well saved. Potatoes are a fair crop, but not as dry as usual. Other roots are somewhat

small, but in very few cases a failure. Hay crop above the average, but not well saved owing to the wet season.

*Cork County, W.R. Bandon D.*—The grain of the oat crop is somewhat light, owing to want of heat when ripening. Hay is abundant but somewhat damaged by the weather. It was thought that the barley would be unfit for mashing for the same reason, but Messrs. Alliman & Co., distillers, tell me that it is very much better than they expected. *Santry D.*—Potatoes are a fair crop, but owing to wet weather in the latter part of season, they did not become as starchy or as good for food as last year. All grain crops, fair yield, but owing to bad weather in the harvest they were injured badly, and did not ripen before some of them had to be cut. Hay, a good crop, but owing to bad weather in season for saving, some of it was badly injured. All root crops such as turnips, mangolds, &c., are fair crop. *Castlebliss D.*—In this district the potato crop has been more or less a failure, which I attribute to the wet weather that prevailed during the summer. The oat crop also was light. Hay was a most luxuriant crop, and was in almost every instance well saved. Any failure is altogether to be attributed to the bad weather. *Clonsilla D.*—There was a fairly good yield of all the crops in this district, both in quantity and quality, with the exception of wheat, barley, and potatoes. The three latter crops suffered so much from the continuous rainfall, that when the fine weather came on towards the end of the season, they were unable fully to recover, so that they are below the average, both in quantity and quality. *Dunnesbury D.*—The crops generally in this district are not good, with some exceptions. Potatoes are not more than half a crop, oats fair, and wheat bad. Hay, however, was a good crop. Green crops are very fair. The seasons were very unfavourable, both for growing and ripening, being cold and humid. I am of opinion potatoes generally are not planted early enough to enable them to grow and mature and withstand the disease which sooner or later is sure to attack them. *Maroon D.*—The crops have been generally fairly good in this district, and in some cases much better than last year. The potatoes are fairly abundant, though not of such good quality as those produced last year. The cereal crops were considerably damaged by the constant rains, but the loss of the grain is amply compensated by the increase in the quantity of hay and straw, which were very scarce last year. The turnips, mangolds, &c., are a fairly good crop. *Millbrook D.*—All the crops are fairly good. Cereals fairly remunerative, but the grain somewhat damaged by the moist season. Mangolds and turnips are somewhat over the average. Potatoes are a good crop, and hay and straw plentiful. *Shillbreen D.*—First and second crop hay, a good crop, both as regards quality and quantity, and well saved. Meadow hay good in yield, but quality, in about 40 per cent. of instances, has been considerably damaged by the wet weather which occurred while it was being saved. Potatoes, a fair crop as to quality, but below average yield, attributable to the heavy rainfall during July and August. Oats, good crop as to yield, and fair as to quality. Straw very good and abundant. Mangolds and turnips a fair crop, but roots not very large, owing to absence of warmth and sunshine. *Shill D.*—I beg to report that the yield of the various crops in this district has come up to a fair average. In the early part of the season there was every appearance of a plentiful harvest, but owing to the almost constant rains in the months of July and August, the potato, hay, and grain crops were seriously damaged. Early potatoes were very wet and black, but the later ones have turned better, and the yield is a good one. The hay crop was the largest that had been known for years, but great difficulty was experienced in saving it, and much of it was lost or discoloured. The grain crop, too, was good, but to a great extent beaten down and rotted by the rains.

Potatoes or  
Maroon.



**FRUITFUL OF  
HARVEST.**

Green crops are a good average, and on the whole, the prospect for farmers is fairly good this season.

**KERRY COUNTY.** *Cadriacra D.*—I consider that the past season was a favourable one for farming men generally. *Cadriacra D.*—The rates of produce of the several crops in this district this year are good, the fine weather in the latter part of August and the month of September has produced such good crops. *Enniscorthy D.*—The bad yield of the various crops in this district may be attributed to the severe rain and cold in the early part of the season. *Kilmarney D.*—Potato crop was not near as good this year as last. In heavy soil the tops were good but the yield was bad, and not good for use. In dry soil the crop was nearly as good as in previous year. This district was wet and damp, save in some few places. Pasture was good this year and farmers were able to make more of grazing than the previous year. Hay very plentiful. Other crops no change. *Kilmore D.*—All the crops in this district appear to have been good this season. Owing to the wet there are very large quantities of hay and straw. There are a few bad potatoes, but on the whole, the wet appears to have done that crop very little injury. *Lisdoon D.*—The potato crop in this district is much inferior in quality and quantity to that of last year, which is attributable to the wet season. The oats crop is also inferior to that of last year, caused by the wet season and high wind which caused it to lodge in rich lands. There is little or no wheat, barley, or rye sown in this district, but it was a fair average. The green crops were a fair average this year. *Trillick D.* The grain crop did not yield the return of what was expected from its earlier growth, owing to the heavy rains and severe weather which prevailed during month of August and early part of September, and in a good many electrical divisions the yield is much below former years, for the cause I have already stated, inasmuch as it caused the heavy crops to lodge and did not properly ripen in consequence. The potato crop was also injured by the heavy rains, but not so much as corn. If the summer season was warmer a better crop would be produced, but, as it is, it is up to that of 1884 and 1887. The other green crops were good and were not harmed by the rain.

**LOMBARD COUNTY.** *Abbeyside D.*—On the whole, this year's crop is more abundant and better saved than most people two months ago thought it would have been. Potatoes, though not by any means so good for food or so abundant in yield as last season, are fairly good. The hay crop is very much above the average in quantity, while in quality it is deteriorated, owing to two causes—that it was permitted to grow too long without being mown—the people were waiting for fine weather—and when mown the weather was not favourable for saving it, hence it is very "wippy." Oats is not much grown in this locality, and the small complement grown never filled or ripened sufficiently, hence I would say not up to average yield when compared with past seasons. The "green crops," too, are below the average, owing to the almost continuous rains and want of sunshine during the summer. The turf, a very important item in all that goes towards the people's support, is very badly saved and a large portion of it still on the bogs. The only favourable circumstance I observe is that cattle are maintaining the increase in their prices, which took place last May. *Adare D.*—The unusually good yield of the various crops in this district is mainly attributable to the general favourableness of the weather from the commencement of the year. *Bruff D.*—There is very little tillage in this district. The land is nearly all grazing or meadow land. A considerable quantity of the hay was injured, owing to the excessive rainfall. There is a very large supply of hay, but, as I have observed, much of it is in bad condition. There was an abundant supply of grain, and it has been a good season for cattle, on which and

their produce the people in this district chiefly depend. The small quantities of wheat and oats sown promised well, but the heavy rain lodged the crop. There was, however, a great improvement effected by the favourable change which took place in the weather in September. Potatoes are a good crop so far as yield goes, but the quality is not good in many instances. Mangolds and turnips are good crops. As the bulk of the people in this district depend chiefly upon sales of cattle, milk, and butter they will not be so seriously affected by the damp season as people in districts where the land is poorer, where the farms are smaller, and where they chiefly depend on tillage. *Kilkeena D.*—Wheat, average in quantity and quality, but not extensively grown. Oats not extensively grown, very fair, and straw good. Potato crop much affected by rain. Turnip and mangolds good. Hay above the average crop in quantity and quality. *Limerick D.*—The crops are good in every respect. This is due to the unprecedentedly fine season. This is the sole cause for the good yield. *See also D.*—The crops of all kinds in this district are of a fair average yield. The hay crop especially was abundant, but badly saved in a good many instances owing to the wet weather. The potato crop has turned out better than was expected, but not so good in quality as in former years, also owing to the wet season. The turnip crop is also very good, so that, on the whole, there is no great cause to complain. *See also D.*—The increased produce of some crops, especially that of hay, has been caused by the very wet season, which has also caused a decrease in other crops growing on low-lying lands, corn is a great many instances becoming lodged from the heavy rain, and potatoes not receiving sufficient heat during the summer. *Rathfriland D.*—The potato crop is an average crop in this district, save where farmers had seaweed in sowing them; where this was done there is a great failure. This is attributable to the wet season. Wheat is an average crop. Oats is far short of the expectations of the farmers in many places, which they attribute to the very wet season. Hay has been a good crop and is over the average in this district, the wet season favoured this crop. Other green crops are good and will be over the average. The wet season also favoured these crops, as the land is dry in this district.

**TIPPERARY COUNTY, N.B.** — *Borrisokane D.*—The good yield of the crops grown in this district is attributed to the fact that the weather this season was far more favourable than it was last year. *Enniscorthy D.*—There was an exceptionally good yield in all kinds of crops this year. Owing to the rains of July and August and the dampness of the spring, hay is extremely abundant, but not all of first-class quality as the rain prevented proper saving. Corn is rather late, but abundant. Potatoes very good. Turnips also good. *Enniscorthy D.*—The hay crop good yield, owing to the dampness of the summer. Turnips and mangolds good yield, to the same cause attributed. Cabbage crop good yield. Oats, fair average yield in high-lying districts, except in the mountainous districts where the yield is not good owing to too much rain in the summer months. Potato crop good yield in the greater portion of the district, in dry land. In the mountainous districts the potato crop suffered from the wet weather and are not a good crop generally in those districts. The above are the principal crops sown in district. *Rooskey D.*—The rain did a good deal of damage to the hay harvest in this district; and with regard to potatoes and oats, although abundant, I do not think the quality is as good as it should be, owing to the wet early in the harvest, and the oats having been lodged, and in some cases a second growth occurring. The turnip crop is better yield than last year, the weather having aided it. *Templemore D.*—On the whole, all kinds of crops are well up to the average of former years in the neigh-



hood. No remarkable failure or superabundance of any kind to be noted, but the yield of turnips is, however, superior to the yield of last year owing to the great quantity of rain in this compared with last year. *Stirling D.*—The hay, potato, and turnip crops on a very good produce this season—more than average. The barley and oats are not so good, owing to the inclemency of the weather.

**TIFTERY COUNTY, S.R.** *Cahir D.*—The yield of crops in general has been extremely large; but their quality, and more especially that of cereals, has been injured to some extent by the wet and generally inclement weather which prevailed before harvest time. The potato crop, whose success is of so much importance, is very free from disease and the yield is large. This applies to root crops in general. The first crop is a complete failure, which is also attributable to the unfavourable weather. *Carriken-Suir D.*—The several crops are far superior in yield to those of previous year, owing, no doubt, to the moist spring and summer. Some of the hay has not been well sown, and complaints are being made that the wheat and oats are unusually scanty or black, which may be traced to the great fall of rain during the summer. *Cashel D.*—I believe that the rates of produce exceed those for last year, and in some cases the averages for last few years. I consider it is probable that the good yield is caused by the abundant rains which fell, acting on a soil which had been very much dried and heated by the unusually fine weather last year. *Glenn D.*—The yield of all crops in this district (save potatoes) has been exceptionally good. This is chiefly attributable to the very fine season, having a good deal of heat and an average supply of rain during the summer. The potato crop is not so good, owing to rather much rain in July and August, at a time when the crop requires heat. *Dundrum D.*—Owing to the unusual wet in June, July, and August, there was of all crops prolific growth. A very dry September crowned the harvest, and in all cereal crops the farmer has from produce fully 80 per cent. in value more than last year. Potatoes are only a fair crop, but while disease injured many in low lands, in other places there was freedom from disease and heavy crops. All garden produce has been good.

Turnips and such crops very heavy and good. *Kilmeale D.*—The harvest in this district is very fair. The farmers are generally speaking satisfied. The hay crop was good and abundant. Oats was fair. Wheat only middling. Potato crop very fair. The weather here for the last two months has been all that could be desired. *Tipperry D.*—The yield of crops of all kinds is very much above the average. The heavy rain in July and August damaged a quantity of hay, but the crop was so heavy that the loss was more than counterbalanced. The dry, hot weather that set in during September and lasting well into October, matured the corn and root crops, and the late meadows produced a heavy yield.

**WATERFORD COUNTY, Cappoquin D.—The potato crop was much better than anticipated, owing to the recent fine weather. The corn is not so good, owing to the wet weather at the time of ripening. Hay crop good on account of favourable season. Other crops very fair. *Dangerron D.*—Most of the crops have not been as good as in previous years, which is attributed to the harvest being so unfavourable. In most parts of this district the potato crop is very unproductive, and the quality is not at all so good as last year. The wet harvest damaged nearly all grain crops. Turnips, mangel warts, and cabbage crops are as good, if not better, than in previous years, which is owing to the wet season not taking such effect on these crops as on the others mentioned. *Portlaoise D.*—The year has been extremely favourable to all crops, except old meadow hay which has suffered severely in consequence of the wetness of the months of July and August. First crop hay being cut neither was a good crop and a large quantity has been well saved. *Waterford D.*—I consider the yield of the various crops in this district comparatively good, which is chiefly attributable to the good weather for harvesting, that prevailed during the end of summer. The farmers in this district seem to be in very much more comfortable circumstances than they had been for some years. As a rule when they see the prospect of a good crop in the early part of the year, increased industry sets in, and strenuous efforts are made to preserve it in order to have a good yield. This has been so this year.**

Province of  
Munster.

## PROVINCE OF ULSTER.

**ARMAGH COUNTY.** *Armagh D.*—I consider the very wet summer is the cause of the potato crop not being so good or yielding so well in this locality, where the land is deep and heavy. The hay and oat crop are very good and yielding well. The flax crop is a fair one, but the turnip is bad owing to the wet season. *Ballymena D.*—So far as this district is concerned the yield has been fair with respect to most crops except potatoes and turnips. Potatoes are as a rule a bad crop, and of inferior quality, owing to the constant rain during the summer, and want of ripening weather. Turnips in many portions of the district have failed. Flax is a good crop and a plentiful supply. Hay was an abundant crop, but the period for sowing it turned out very wet, and as a rule the quality will be inferior. Oats promised splendidly but owing to want of heat did not ripen thoroughly, and would have been tremendously injured were it not for a period of good weather in September. Root crops give a fair return. *Ballymoney D.*—The potato crop is not up to the average of the last two years, owing to the very heavy rains at beginning of the autumn. Hay is rather over the average in yield, but suffered in quality from the heavy rains. Oats is a good crop probably owing to the fineness of the weather up to beginning of the harvest. Turnips are somewhat a failure, attributable to the heavy rains. Flax on the whole is a good crop, owing to the weather having been favourable during the greater period of its growth. There are

no other crops in this district of much importance. *Belfast, North D.*—The produce of hay, oats, &c., has not been so good as that of last year, owing to the season being so wet; on the other hand, I find that the produce of turnips, mangolds, and in fact all root crops has exceeded that of last year, and yields, comparatively speaking, abundant crops this season; this of course is attributable to favourable weather (damp) and careful cultivation. On the whole, the produce of the several crops, at least, as far as this district is concerned, which consists solely of townships, may be considered as average. *Belfast, N. W. D.*—On the whole, the yield was good, but owing to the very wet weather in the early autumn, the harvesting was rendered very difficult. *Belfast, South D.*—Bad yield of crops, cause—wet season. *Carrikerbeg D.*—The continued wet weather in July and August seriously affected what would have been a very good harvest. The dry weather in September recovered matters very much. The hay and straw crops are very abundant, but not well saved. The potatoes are about half an average from the wet season. Prices for cattle and farm produce are better than the average of recent years, and farmers appear fairly well satisfied. *Lisburn D.*—The yield for this year has been on the whole satisfactory. Hay has been plenty, but badly saved owing to the rain of July and August. Wheat from the same cause has more or less suffered, but oats, turnips, and mangolds are good.

Province of  
Ulster.



- PROCEEDING OF  
THESE.

**ARMAGH COUNTY.** *Armagh D.*—The crops are good this year. The potato crop is not so good as last year, but all others are above the average. The reason assigned is, that the season has been a very fine one for farming operations. *Laragh D.*—The good yield of hay is attributable to the wet season. It is, however, inferior in quality. The bad yield of potatoes, &c., is attributable to the same cause. *Newry D.*—The oat crop this season was an abundant one owing to the good harvest and favourable season. The potato crop is also a fairly good one. Flax was pretty good too, owing to the May and June rains. The early hay crop was not well saved owing to the August rains, but the late hay was good. Turnips and green crops are fairly good. *Portadown D.*—The bad yield of the various crops is caused by the wet season. The crops in general are all bad this year owing to wet season. There was a good crop of hay, but it was badly mowed, and a considerable quantity of it was altogether destroyed owing to constant wet weather.

**CATRY COUNTY.** *Bellshillmore D.*—The hay crop was plentiful but badly saved, owing to heavy rains in July and August; in the same cause may be attributed the wretched yield of potatoes, which is not considered up to the average. The people around this town and Kingscourt seem fairly well satisfied with this year's harvest; but towards the northern part of county Cavan, in the Coshill direction, the farmers are not at all contented with the crops. The flax crop, a great quantity of which is grown there, is not turning out well, the yield is below the average and the quality is bad. The yield in oats is fairly good. *Bellshillmore D.*—The principal crops in this district are hay, oats, potatoes, and turf. The hay crop was good, but owing to the wet season it was not generally well saved, but it is abundant in the neighbourhood. Oats was also a good crop, but late owing to same cause. Potatoes are a fair crop, but not so good as the crop of 1883. The month of October was very favourable, turf has been got dried and crops generally gathered in; on the whole crops are good and abundant this year, and there is a fair price. *Cavan D.*—The oat crop, which yielded fairly, was, owing to the fine weather, very safely harvested; the hay crop, which was abundant, was much injured by wet in the early season. The potato crop was by no means good, and the flavour of the root is bad; the kinds of seed generally sown are getting worn out—fresh seed raised from the apple and fresh ground is wanted. *Killesnoe D.*—The cereals in this district are generally good, and this fact is to be traced to the good weather which was experienced at the end of the harvest; the yield is not very abundant but the quality is good. Potatoes are good, and although the yield is not as large as that of last year still the quality is good. The crop of hay was abnormally large, but owing to the wet weather during the hay harvest the quality is not as good as might have been hoped. The price of cattle has been very high, and farmers owing stock have realized very good profits. *Swanlinbar D.*—The potato crop in this district has been bad, owing to the very wet season; the crop is below the average, and in some places the rot attacked the potatoes. The oat crop, which is the most important here after the potatoes, has not been bad on the whole, though hardly up to the average. What there is of good quality and was well saved. The other crops are only grown in small quantities, but are about up to the average.

**DESEROL COUNTY.** *Aderna D.*—This year has been an exceptionally wet one. This is the cause of the badness of the potato crop. It has, on the other hand, increased the yield of hay, which, for the most part, being saved in wet weather, is below the average in quality. The oat crop in this district was also inferiorly affected by the wet season. *Ballyshannon D.*—All the crops, with the exception of the potato

crop, are far more than an average, particularly the hay crop. The potatoes in many places have been considerably damaged by the continual wet weather, especially on the sea-coast. *Bancomra D.*—The yield of all crops is indifferent, that of potatoes decidedly bad, owing to the great quantity of rain during spring and summer months. The fine weather in autumn effected a certain amount of improvement in grain crops, which were not so bad as was anticipated. *Dunfinny D.*—In consequence of the wet and stormy summer, the potato and turnip crops have given a bad yield this season, together with the want of a strong sun, which was needed to ripen the grain and flax. In the mountain districts the crops have been bad, and in the low-lying districts they are about an average for grain but deficient for other green crops and flax. Hay has been fairly good. *Dunfry D.*—The only crops cultivated in this district (with very little exception) are oats and potatoes. The former is an average crop this year. The latter, owing to the wet season and the mountainous nature of the soil, is both, as to yield and as an article of food, very much below the average—I should say about 50 per cent. *Letterkenny D.*—Oats and hay appear to have been a full crop. Potatoes are very deficient, owing to the wet summer. *Meath D.*—The potato crop throughout this district was very bad, owing to the excessive rain, and also some blight which spread generally. The turnip crop was also very inferior. *Raphoe D.*—Crops are fairly good throughout this district. There have been in some cases (such as turnips and potatoes) a smaller yield than usual. The excessive moisture in July and early in August has caused this in three crops. The hay crop suffered most from the abundant moisture, and in few cases was saved without suffering more or less from its evil effects. The oat harvest was not up to the average of good years from a similar cause. But on the whole farmers are contented with their harvest. The flax crop is up to the average in this district. *Enniskillen D.*—The unusually wet season proved injurious to almost all crops, and particularly in the case of the potato, hay, and turnips, as well as mowing feed—the turf—source. Other classes of crop fairly good, and much benefited by the good weather which prevailed in September.

**DOWN COUNTY.** *Annbridge D.*—I beg to state that the chief crops in this district are potatoes, corn, flax, hay, and turnips. The potato crop is bad. The yield is not good, and the proportion of diseased potatoes is larger than usual. I think the cause was the large amount of rain which fell in July and August. The corn is abundant, but the ears were not very well filled, owing to the bad weather in July and August. But it was well saved, and the crop, on the whole, is up to the average. The flax crop is bad, cause unknown. The hay crop was very abundant; much above the average. The wet weather, which was bad for the corn and potatoes, contributed to the result. The turnip crop is not good. Much was lost when the crop was at a critical stage, and this may account for the comparative failure of the crop. *Downpatrick D.*—The yield of the different crops this season is bad, especially potatoes, turnips, and wheat, which has been caused by the wet season. Potatoes are wet and not good for eating, except "champions." Oats is a fair crop. Hay is a good crop, but badly saved in consequence of the wet season. *Newtownards D.*—The several crops grown in this district will yield a fair average, except wheat and potatoes. Want of heat and the heavy summer rain caused the wheat to be damaged, and kept the potatoes from maturing, as they would have done in a dry season. Oats are an abundant crop, and the yield of straw is especially large. Turnips look well, and will be more than an average crop. There is a great abundance of hay, but large quantities suffered damage while being mowed. *Rock-Joyland D.*—In this Constabulary District the yield of the various crops has been average, except with



respect to the crop of flax, which is considerably better than that of the last few years; and to the potato crop, which is not quite up to average—both cases excepted, I consider, by the extreme wetness of the season.

**FERRAGH COUNTY.** *Derrygonally D.*—The crops in this district for the present year may be considered fairly good, with the exception of potatoes. That crop was very much injured by the heavy rainfall during the summer months, and may be considered a bad crop this year. All other crops in this district will yield a fair return. *Swetkillen D.*—The crops in this district this year may be considered fairly good, with the exception of the potato crop, which has been much injured by the continual rainfall during the summer months. On the whole the yield for this year may be considered a fair average, with above exception. *Kesh D.*—This year the crops through above district were a fair average, and no particular cause was or could be assigned why they should be above or below that standard. *Lismakela D.*—To the best of my knowledge and belief the crops in this district have all been over the average in quantity, except turnips, and in quality, except potatoes, which have been rather inclined to rot in the ground, except in mountain, or mountain head-land; this is on account of the wet. Crops of oats very good. Hay very good quantity, but not well saved in a few cases. Barley little sown, but good. Flax very good in both quantity and quality. Potatoes poor quality, and some loss owing to rotteness.

**LONDONDERRY COUNTY.** *Coleraine D.*—The only cause affecting the yield of the various crops here last season was the somewhat unseasonable weather. The wet that prevailed in the early season caused a considerable growth of grass, and corn-stalk, and flax-stalk, but the absence of heat at early harvest time, and of dry weather, prevented hay being well saved, and accounts for poor grain in corn, and excess of stalk over grain in flax crop. The potatoes, in some way, from excessive rain, and deficient heat, grew greatly in stalk, and lost in root. Turnips were generally said to be "scalded" in the ground, and dwarfed, from the same cause. *Lisnagrove D.*—Owing to the excessive dampness of the past season, both the potato and turnip crop in this district have been far below the average of other seasons in quality and quantity. Cereals have yielded plenty of straw, but have been deficient in grain. The flax crop has been fair. *Londonderry D.*—Owing to the very wet summer, and great want of heat, the crops have been almost, without exception, very bad this year. The constant rains during the month of July were most prejudicial to the hay, but the little that was saved in June, and the old meadow hay, was a heavy crop. The corn appeared to be a good crop, and the straw plentiful, but, on threshing, the yield of grain was not at all up to the average. Turnips and mangold wurzel are very bad, the former, in many instances, having been washed out of the ground after being sown; and as a rule they will be hardly worth pulling. Potatoes are not up to what they have been in recent years either as regards quantity or quality, and a large proportion has rotted in the ground. The only crop that can be considered good is flax. *Maghersfield D.*—Potatoes: this crop is below the average owing to the wet season, and this has caused "disease" to be prevalent. Flax is a good yield. Corn is a good yield, but some of it is of light quality. Hay is above the average, but not well saved.

**MAGHERAN COUNTY.** *Corrickmorens D.*—The wheat crop is nearly a failure owing to the absence of sun, and continual wet weather. The oats and barley

crops have also suffered much from the same causes. The hay crop was heavy, but was destroyed by the wet weather. The potato crop is also a partial failure from the same cause. *Clones D.*—Owing to the wet weather in the beginning of the season the potatoes and hay have not been as good as was expected. The remainder of the crops, however, are excellent, and I understand the yield is half more than last year. *Monaghan D.*—The rates of produce show a fairly good crop in the several electoral divisions, particularly in the Electoral Divisions of Bellinacoda, Ennyvaugh, Enagh, Glasfought, Figgis, and Teltall, where the land is exceptionally good. In some of the other electoral divisions where the produce is not so good, the land is situated in a poor district, where the farmers have small holdings, and are not fit to properly till the land. The summer being rather wet, and the latter end of the harvest being so fine, the grain crops are plentiful, but the potato crop is not so good as last year.

**TIROSH COUNTY.** *Askeahilly D.*—The yield from year to year in this district is severely affected by any but climatic conditions. There is a great variety of soil in the district, from rugged mountain top to rich alluvial soil. As a general rule the defects in the system of farming are too shallow tillage, and waste of manure matter. Burning of weeds when gathered is much practiced, thus much manure is lost; it would be much better to let them rot in heaps for two years. Flax water is let run to waste, when in many cases it could be distributed over the adjacent fields, and would more than pay for the labour expended. There are numerous other instances of petty waste in this respect, which in the aggregate go to make the difference between successful farming and the reverse. In many cases the farms are too small, and the people have no home industries to occupy their idle time. Much to remedy this might be done by small grants in aid of the local agricultural and horticultural societies, for the express purpose of giving prizes for the produce of such small industries as should seem useful, and likely to pay. The purpose of the prize should be stated, and the money should not be applied to anything else. *Cookstown D.*—The hay and potato crops suffered greatly from the heavy rain during the summer, and are much below the average in quality. The other crops are a fair average. *Danganmon D.*—For many years there has not been a better crop, but owing to the incessant rain in the beginning of autumn some of the hay crop was injured, but the very fine weather recently permitted the crops to be saved. The corn crop, generally, is good in quantity and quality. The flax crop an excellent one, but the potato crop is not as good as the last few years, owing to the wet. The turf is not good for some reason, but there will be a fair supply of both. In some instances the oat crop did not ripen very well, owing to the constant wet, and little hot weather. *Newcastlewest D.*—As little or no change in the system of farming takes place in this neighbourhood, one year from another, the good or bad yield is attributable to the weather. *Omagh D.*—I consider that the weather being so good this harvesting season has rendered the return of crops, now being utilized, better than last year, but the market prices grow low, according to the greater supply brought in. *Strabane D.*—All the green crops in this district have suffered more, or less from the coldness and continual rain during the season. I believe a third of the potato crop will be lost from the same cause. The hay has been a good crop, but much difficulty was experienced in saving it, owing to the continual rain.

Province of  
Ulster.



## PROVINCE OF CONNAUGHT.

TOWNSHIPS OF  
CONNAUGHT.

**GALWAY COUNTY.** *Athlery D.*—The crops in this district have been very good this year with the exception of the potatoes which are not so good as last year, on account, I believe, of the season not being so warm or good as last season. There was a good deal of rain which caused them to grow more in the stalks. *Ballinacorney D.*—The good yield this season is attributable to the fine weather which came about the latter end of last month and continued during the present, it favoured the ripening of the green crop, and the saving and securing of hay. *Clifden D.*—There was a very fair average yield this year, and people are pretty well satisfied, some consider that if the year was not so wet the cereal and potato crops would have been better. *Clashmore D.*—The wet summer caused the marked decrease in the yield of the potato crop this year when compared with last year's yield. *Meenama D.*—I think a fair supply of this article of food will be found to exist. All the other crops here, I believe, an increased yield when compared with the yield of last year, owing to the moist summer. *Dunmore D.*—I have heard it stated that both turnips and potatoes, which are wither a good crop in this neighbourhood, got too much wet and too little sun at the early part of their growth, and I think this may apply generally. Though the crops may not be said to be good, they are not considered bad. *Galway D.*—The harvest has been a good one in this district, for which I cannot assign any cause, except that on the whole the weather has been favourable. All crops have been good. *Gort D.*—Where a bad yield of any crop exists in this district, the result is attributed to the fact that the summer was very wet—and the good yield, more particularly in the grain and hay crops, is attributed to the unusually dry autumn which succeeded the wet summer. *Longfover D.*—The yield of the several kinds of crops in this district was good this year and I attribute it to the moist season. *Maybegh D.*—The potato crop is not up to the average of other years, which I attribute to the wet weather of July and part of August. The oats and hay crops are fairly good, the dry weather of September and October served those crops. Turnips are a very good crop. *Shanahilly D.*—The improvement in the yield of the crops in this district (except potatoes, which are in much less quantity) was the drier season at the end, especially the fine hot weather, which most unusual here. *Portlanna D.*—In consequence of the unusually wet season, there was rather an abundant growth of the crops generally, especially the hay and grain crops, but, for the same reason, the harvest was unusually late, and these crops lost much of their value by being badly or only partially saved. *Rossabeg D.*—The yield in this district is due to the moist summer. The land as a rule on the sea-coast here is shallow and the crops suffer much, and does not produce half the yield in a dry summer. *Spiddal D.*—The crops in this district have been uniformly good this year. Owing to the fine weather during harvest time all produce, except the potatoes, has been saved, and the latter are now being quickly dug. The potato crop on the Aran Islands, owing to plenty of moisture in the early season, is the best that has been for past seven years. *Tuam D.*—The good hay and oat crop is attributable to the rainy weather that prevailed in the latter part of the season, followed by days of sunshine, which came just in time to properly ripen the crops. The potato crop is not so good as last year, caused by early blight and too much rain. Turnips and mangolds—the rainy weather was advantageous to these. *Woodford D.*—The continual rain during the summer months slightly injured the grain crops, but the yield was not below the average. The potato crop also suffered from the rains, which is the cause of there not being a fuller crop. The root crop is very good; as failure is reported from this district. The hay crop is abundant, but some of it was badly saved on account of the wet weather.

**LEITRIM COUNTY.** *Ballynascree D.*—I consider the good yield of hay was caused by the wet season, and the bad yield of the potato and oat crops to the wet harvest. *Carrick-on-Shannon D.*—All the crops grown in this district, with the exception of oats and potatoes, are of average yield, and the comparatively bad yield of these named is owing entirely to the wet season. *Drumahaire D.*—The general decrease in the yield of crops in this locality is, in my opinion, attributable to the very wet season. Hay is the only crop which gave a good average, but owing to almost constant rain during the season the quality in many cases is very inferior. *Monaghan D.*—Owing to the cold, wet summer and autumn the yield of the various crops, except hay, is bad in this district. Though the hay crop is one-third greater in yield than last year, yet it has been in many places badly saved, on account of the wet season, and it is therefore of less value than it was last year. *Robb D.*—Taken all round, the agricultural produce of this district has been much inferior to that of 1887. In the early part of the summer a good and productive harvest was anticipated. The crops promised to be unusually productive, but the large amount of rain during the latter part of the summer disappointed this expectation. The heavy rains helped the corn, which never recovered properly, and the result is, that the produce is below the average. The potato crop has also not come up to expectation, and is below the average.

**MAYO COUNTY.** *Ballygladheron D.*—This has been a good year for farmers. Potatoes, though not so good as last year, which was exceptional, are an average crop. Rain in month of August did some harm. *Ballina D.*—I beg to inform you that I am of opinion the cause of bad crops this season is from the continual rain which fell during the summer and harvest. *Ballykeale D.*—Owing to the wet season most of the crops are below the average, except hay and turnips. Potatoes of all kinds are not near so good as last year, in consequence of the blight coming on so early in the season. Wheat and oats are much the same as last year. Hay and turnips are pretty good in this locality. *Belduff D.*—The rates of produce of the crops that are raised in this district—hay, oats, and potatoes—yield much more than an average, except potatoes, which are not so good as last year, owing to the wet season. *Castleduff D.*—The produce of the different crops in this district is a generally fair average, except hay, which exceeds the average, owing to the wet summer. *Claremorris D.*—The crops cultivated in this district are oats, potatoes, and turnips. The oat crop is a fair average, as is also that of turnips. The potato crop is below the average, owing to the wetness of the summer. *Neepart D.*—From my knowledge of the crops for past season, I consider the following should be above the average yield, because of the mild, wet season, viz.—hay, straw of corn, turnips, mangolds, cabbages, carrots, &c.; and the following under the average, and owing to the same cause—continuous wet and want of sunshine, viz.—potatoes, flax, the grain of corn, &c. *Swinsford D.*—The grain crop, which consists principally of oats and barley, is an average crop; in a good many cases the yield is in excess of the average, which is to be attributed to the moist season. The potato crop generally is below the average, the inverse of the former, and is to be attributed to the same cause. The holdings are very small, and the land is worn out from a constant recurrence of some crops, so that a wet season altogether injures the potato crop, except on strong, fresh land, newly broken, which only rarely occurs. A moist season only serves the grain crop, provided the harvest weather is fine and dry. The hay crop is of good average produce, and owing to the late fine harvest weather it is generally in a second state. The yield of turnips is of



the average. *Westport D.*—The crops in this district for current year were neither better nor worse than those of former years, with the exception of the hay crop, which was much better this year than it was on last year, owing to the very dry summer we had last year and the early part of this summer having been moist. The potato crop is not as good this year as it was last year, and the reason assigned is, that July and August were too wet to allow the potatoes to come to perfection.

*ROSCOMMON COUNTY. Ashlens D.*—The hay crop has been very plentiful this year, but a good deal of it has been badly saved in consequence of the constant wet in July and August. Oats are also above the average, the straw being particularly fine. The dropping season suited root crops, consequently turnips and mangolds are above the average. Potatoes are about an average crop, but complaints are made that many of them are diseased. *Boyle D.*—The crops generally this year will not come up to the average of last year's produce. This I must attribute to the unfavourable summer which we had, the continued down-pour of rain and absence of natural summer heat was a very great stay against all crops. The average produce I believe of the crops all round will be one-fourth less this year compared with that in 1887. I should not include the hay crop in above, as this crop is more abundant this year than that of last year, I would say by one-fourth. *Castlerea D.*—Generally speaking the crops in this district were fair. Had there been less rain and cold weather in the earlier part of the season, I have no doubt that the potato crop would have been larger and of better quality, as also that of oats, which is somewhat below the average this year. *Roscommon D.*—The damp weather in June and July last caused the hay crop to be exceptionally heavy and made straw long, but did not benefit the grain. For the same cause the potato crop is not so good as last year either in quantity or quality. The weather was admirably suited for the growth of turnips and mangolds which are an exceptionally good crop in this locality, which is chiefly grazing.

*Strokestown D.*—Hay is an abundant crop, being fully one-third more than an average, owing to the season being favourable. Oats, a fair average crop. Turnips, a good crop, the season being favourable. Potatoes, a bad crop, being fully one-third less than an average crop owing to the heavy rains during the autumn, and the disease appearing early before the crop had arrived at maturity.

*Sutton County. Ballymore D.*—In this district hay and oats which were good crops suffered much by the wet season and were badly saved. A good deal of hay was lost by floods in low lands. The season also affected the potato crop. *Collesbury D.*—The yield of the various crops for the year 1888 is fair. The root crops, especially potatoes, are not as good as they were last year. This falling off may be attributed to the excessive rainfall during the summer months accompanied by a low temperature. The cereals are somewhat better than last year, though the grain is not of such a good quality for want of the heat required for ripening. The green crops are good. *Ennisk D.*—I beg to report that the fair average yield of the different crops in this district is attributed to the weather which was wet in the early part of the season, and fine towards the end of it. *Siligo D.*—With the exception of the potato crop, the crops this year were fair, owing to the good weather at the end of the summer. A good deal of damage was done to the potatoes owing to the very wet weather at the beginning and middle of summer. I should say nearly half the crop was destroyed by the wet. *Toberserry D.*—The potato crop in this district is far below the yield of last year in quality and quantity. This was due, no doubt, to the rainfall in July and August. The blight is marked all over the district, champions as well as other seed having suffered. Perhaps the champion seed produced here is less able to resist disease than that imported. Hay has been a very good crop, but late hay suffered in saving. The harvest has been well saved. Oats, the principal crop here, is paying well, other crops are of average yield and quality.

PAVING OF  
CORKENIGHT.







## AND ENSILAGE.

The names and addresses have been inserted in those cases where permission has been given to include them.

## LEINSTER.

Number of days occupied in silage.	Material put in Silo.	Temperature.		Quantity of Silage in Tons, given to Cattle per Week.	To what description of Cattle, if to which state up, and how much.	Remarks.
		Orchest Heat.	Average Heat for 24 hours.			
10 days.	Old meadow grass.	125 degrees in the stack, 140 degrees in the silage.	80 degrees.	I found it a ten daily sample for at cows and calves during winter on the pasture.	Milk cows, some heifers, and calves.	I appended the temperature and temperature of the first stack. The lower portion for about a foot from the ground was slightly sour owing to the temperature not having been allowed to rise as high as the upper portion, but the stack appears to be in better than the upper portion which was sweet silage. In the other two stacks the temperature was higher—up to 140 all through, and they seemed not sweet. Waste at top not more than 1 barrel, in sides about 4.
Account and Progress of the Stack at Dunleekney.						
July 1st. Commenced to cut and carry grass into haystack and build up stack.						
<ul style="list-style-type: none"> <li>17th. Stack built to 14 feet high with 100 loads of grass. Press put on with no weight on lever. Temp. 80 degrees.</li> <li>20th. No grass added of this day.</li> <li>21st. Stack built to 14 feet high. Temp. 80. Removed grass and added 10 loads of grass and put on press again without weight on lever.</li> <li>22nd. Stack 16 degrees. No grass added.</li> <li>23rd. Stack 17 degrees. do.</li> <li>24th. Stack 18 degrees. do.</li> <li>25th. Stack 19 degrees. do.</li> <li>26th. Stack built to 16 feet high. Press taken off, and 100 loads of grass added; stack 19 feet high.</li> <li>27th. No grass added.</li> <li>28th. Stack built to 16 feet high. Temp. 120. Press on with no weight on lever.</li> <li>29th. Stack built to 17 feet. Temp. 115.</li> <li>30th. Removed grass, added 10 loads of grass; stack 18 feet high. Temp. 110.</li> <li>31st. Stack built to 17 feet high. Temp. 100.</li> <li>1st. Stack built to 17 feet high. Temp. 115; put on D. weight on each lever.</li> <li>2nd. Removed grass, added 10 loads of grass; put on press; 10 lbs. on each lever; stack 18 feet high. Temp. 100.</li> <li>3rd. No grass added.</li> <li>4th. Press removed, 10 loads of grass added. Temp. 115.</li> <li>5th. Stack 16 feet high.</li> <li>6th. Stack built to 18 feet high. Temp. 120. 1 cow put on each lever.</li> <li>7th. Press removed and about 10 loads of stones put on top. Temp. 120; stack 18 feet high.</li> </ul>						
Finished. All loads of grass in stack.						
I send you my experience in Stack Silage the third year I have made it. I find the Lower Press very satisfactory, and by removing the lower and lower and placing about 10 lbs. of stones on the lower, when the stack is finished you can make a good and a third stack with the same Lower Press. I placed a regular gateway made of logs, 20 feet long, against the stack when I took off the lower, and two labourers borrowed up wooden planks to keep down the weight about 10 lbs. Quantity of dried with mud or earth would answer the purpose as well as stones. I had stack fed on silage on the pasture in winter twice, very much the same manner. I have now nearly 100 head feeding on it, and all looking in very good condition. I have quite given to growing crops since I took to silage, which are a very expensive and uncertain crop. I have written my experience about silage for the next number of the Journal of the Royal Agricultural Society of England, which will contain a very satisfactory article on the subject.						
I cannot say.	Grass from under trees and plantations that was useless before.	Always tried under	to keep it 100.	I cannot say.	Milk cows, springers and calves.	I can only say that I will make one double the size next year, and put better stuff in it. All the cows was about 120, not at once including the calves, which is to the good.
No account.	All old meadow grass.	No account.	to keep it 100.	Mixed with hay.	All kinds of cattle.	Pressure used—stones. Cattle prefer it to best hay.
—	—	—	—	—	—	My silo was made on too small a scale to give satisfaction, but was on the whole fairly successful.
1 day.	Old pasture grass.	—	—	About as fit with other food.	Culinary stone milk.	The cattle have done very well with it, and all very healthy. All the silage in stacks is very good, about 1 foot from the outside I weighed with paving stones, about 100 lbs. to the square foot. The (fresh) had about 10 inches round the walls bed. I left weight in till using it.







## LEINSTER—continued.

Number of days covered in silage.	Materials put in silo.	Temperature.		Quantity of silage in ton, given to cattle per day.	To what description of cattle; if to horses state so, and how much.	Remarks.
		Grass.	Average Heat for last 10 days.			
Five days.	About 8 acres of bottom meadow, from top and bottom.	Never tested.	—	About 20 lbs. per head of cows.	Nov. 18th, 1886, began to give to 12 cows and 21 two-year-old heifer calves, small calves, and 2000 sheep, giving it to cows and reserved it for 20 heifer calves, which were sold out in February and March, and had a very good sale at 1000.	Have seen good ensilage made without any pressure, except about 3 feet of earth thrown on stack in the last few days. Out-lying blocks eat it greedily.
Two or three days.	Grass under trees, and old meadow and subsoil.	—	—	—	Have bullocks and calves on work, and also on the field.	All my silage was very good, and cattle did very well on it, preferring it to good hay. I had no waste in silage, and in stacks about 4 inches or 5 inches round sides; and on top of bottom, also on one stack weighted with boards and stones; otherwise with earth. I consider earth the cheapest, cheapest, and best, and round stack better than a square one.
Account not kept.	Grass only.	—	—	No measure taken.	Given to all descriptions of cattle, and to horses.	The ensilage was nearly all first-class, except an average of about 1 foot of all sides. Top and bottom as perfect as centre. All cattle infinitely preferred it to hay, and did well on it.
—	—	—	—	—	Have bullocks, which also got some hay.	I have seen all systems and am quite convinced the above is the most economical and produces the best quality. I am of opinion that ensilage is much better than badly made hay, but not superior to what can be got together without rain, either in quantity or quality of feeding.
At account.	Old and new grass.	—	At account.	Cattle fed with hay and silage together.	Have not tried horses with it.	Pressure used—stones. Cattle eat it greedily in preference to best hay.
At intervals.	Best old meadow grass—10 tons.	—	Not taken.	As much as they could eat without waste.	Feeding stock, dairy cows and horses.	Commenced silage July 18th, 1886, weighing sides well and keeping grass well leveled. Had 5 tons in by 10th. On 18th put on about 8 tons of stones to stack head. About middle of July it was worked around, stones not added. In some more grass, in some it was dry, a ton was put later, and then silage up, weighing it with a ton in some of stones.
About 10 days, some were wet.	Old meadow grass from underwoods and subsoil.	120 degrees.	120 degrees.	About 1 ton per day spread over half dry hay, it ceased to do so.	To milch cows and cattle.	The ensilage stack was commenced July 18—finished August 10. The ensilage is very good and like cattle like it. Although there is less weed than sides of the stack, yet a good deal of coarse grass, &c., reaching to waste in woods, pastures, and old meadows has been apparently turned to excellent use in an economical way.
10 days.	Second crop clover and first grass.	120 degrees.	120 degrees.	3 times.	One year old and 10 years.	The ensilage is good, and there is hardly any of it rotten on the sides. The sides were packed down with a hay-knife, and on the top a little more was spread, and one foot thick of stones was placed on this to press it firm, it was then topped out with straw to keep off the rain.
4 days large silo, 3 days small smaller silo.	Old meadow grass.	120 degrees.	115 degrees.	At the rack.	Milch cows only.	We fed ensilage a most valuable feeding for milch cows, as they milk well on it, and likewise keep them up in good condition. We also find the silage especially useful, as they enable us to make use of very good feeding grass which if made into hay would be of low quality.







## LEINSTER—continued.

Number of days occupied in silaging.	Materials put in silos.	Temperature.		Quantity of forage in the good condition per acre.	To what description of cattle, &c. to be used, and how much.	Remarks.
		Greatest Heat.	Average Heat for five ten days.			
Two.	Grass along with straw and under trees and some old mowdown.	—	120 degrees.	About 20 lbs. each per acre.	None made up, which is satisfactory.	I have been making ensilage for the last eight years, but I never had such good feeding as this year, both in home and field. The grass was put in a very wet state, owing to the continual rain, but in the end being only put up in wet weather.
No. 1, about 10 days, No. 2, about 7 days.	No. 1, old mowdown; No. 2, old mowdown, plantain grass, and sweetgrass.	Not taken.	—	About 20 lbs. to cows.	All kinds of cattle.	Both silos were made above the surface in any part on hard ground. No. 1 had nothing under it, and there was no damage to any kind in the bottom. No. 2 had some straw and hay put under it, and there was about 1 inch damage at the bottom.
Four.	Second crop of clover and wood grass.	Did not take temperature.	—	1100 tons.	Given to stall-fed cattle on land in the mid-day to establish the crops.	I had silage a most useful adjunct for stall-feeding cattle, with turnips. Since I commenced using it I can testify as much and a half cattle. There is about an equal value all round the silo. The second crop of clover to be made in the silo. Cattle delighted to get it. No man keeping a large dairy or extensively engaged in stall-feeding should be without some.
About four.	Bottom, first crop hay, middle, old grass; top, second crop grass.	—	Not taken.	Not weighed; but does not differ from the first crop; about 10 lbs. to each cow and other fattening cattle; and 10 lbs. to 12 lbs. to two milk cows daily.	For cattle and milk cows.	—
About 1 week.	Common mowdown grass.	—	Not taken.	Sticks only were cut; from 100 tons will be given to each cow according to age.	Barned cattle.	The sticks were built up slowly, fresh grass being put up every second day or so, and well piled. One stack was weighted with earth, another had hay, and a third was built on the top of it, and the third was weighted partly with stones and partly with timber. The ensilage of the stack which had been cut is ready to use by the cattle, and seems a good specimen of green ensilage.
About a week for each stack.	A. Eye-grass (old crop); B. old mowdown grass.	Not taken.	—	The stacks have not yet been taken.	—	The stacks were made in the evening, and on wet days during the making. Stack A was pressed with Johnson's Press, and stack B was covered with dry hay from a house round the stack.
Various times from June to September.	Grass.	Not tested for ten days.	Greatest heat 120 degrees average 121 degrees.	About 20 lbs.	To store cattle spread on the silos; never used home.	I cannot answer all the queries, being absent from Freshborough, but send this paper to Mr. Hill, who manages my farm.
—	Fresh grass, No. 1, in row; grass in 1890.	—	—	20 lbs.	Cows only.	Ensilage very good as usual—1890.







LINSTER—continued.

Number of days required to fill the silo.	Material put in the silo.	Temperature.		Quantity of silage given to cattle per day.	To what description of cattle, if so, silage alone or, and how much.	Remarks.
		Closest Heat.	Average Heat for first 15 days.			
About 7 to 10 days, but in case of cold, weather, perhaps 12 days and redder.	Old meadow grass.	Temperature	not tried.	About 24 lbs.	14 years old and 2 years old, some cattle, some horses.	In the case of the pit silo, the boards were put on the top and weighted with very heavy and large stones about 20 lbs. to the square foot. This silage has been of a superior class in the two former years, but I have not yet tasted them this season. There has been little or no waste. In the case of the pit, there has been no bad stuff on the top, but from 10 to 15 inches on sides and ends, and the stock have better health, with perpendicular sides, there would, I have no doubt, have been less. My cattle are eating it greedily. The best silage I have ever had been made with Alder's press, but it is of some rather expensive.
—	—	Cannot say.	—	—	—	The press was very satisfactory, nearly doubling amount of food; little waste. Milk and some cattle eat it well and thrive well, but require some hay or straw. Most horses like it, but they do not.
Not estimated, but 15 days spread over 15 days.	Upward, old meadow and low land, old meadow.	Not recorded.	Not recorded.	10 lbs. to dairy cows, and 40 lbs. to two-year-old steers.	Dairy cows, and calves of three cattle; some given to horses.	A small and wholesome hay for dairy cows, well fed, and cattle protected from the severity of the weather, but I consider silage unable to sustain strength, keep waste and maintain condition on milking three cattle, which have to be well and whole weather, without a considerable allowance of dry and more concentrated food, such as hay, corn, or cake.
One month, I find in dry season, and in the wet, but in the wet, it is better.	Grass.	110 degrees.	100 degrees.	About 24 lbs.	A large of cattle and young horses.	The silage in the stacks was brighter and better than in the silo, where I allowed it to ferment. In the silo the silage was much better, but very good. The only advantage in silage is that there is no waste round the walls, and with stacks there is a waste of 100 to 150 lbs. on the sides. In future I will build my stacks round, and square, it is at the square end of the stack. There is as much waste on top of a silo as a stack, if weighted with planks and weights.
—	All kinds of grass, mostly good quality.	—	—	About 1 stone to 2 1/2 lbs. the stack.	Store cattle and milch cows.	Silage is a most valuable and healthy food. I consider good hay better but grass will go further as silage, especially where rough grass has thus been made palatable for young stock. Silage stacks are considerably superior to the silo, so that I believe silage to be the cheapest in the long run, if made in the most suitable manner. Stack silage is sweeter than silage made in a house, as the latter silage from the stack, but sweet from the silo. I do not know whether sweet or sour is the best.
From 10 to 15 days.	Old meadow grass and green oats.	Not observed.	this year.	Outlying cattle, 20 lbs. to 40 lbs. to the stack.	Cows, some cattle, and sheep. Some given to outlying cattle.	Produce average about 10 lbs. per week, but when filling. After sufficiently matted hay is laid upon top. All silage of first-class quality, and produced by cattle to hay.
From 10 to 15 days, but in the wet, it is better.	Meadow grass.	Not tried.	—	—	Store cattle to spring, some old, some to be horses.	Considered good food for all kinds of cattle, especially for cows in the spring. Great advantage in milking cattle, as the silage is independent of the weather. I am adding butchers and cattle for weighting.
From 10 to 15 days.	Old meadow grass.	Not tried.	Three stone a day.	Three stone a day.	Milk cows and 1 stone to other cattle.	My press is the Wain's Screw and Lever Press Patent, and I consider this the best in the lowest saving way.
By weighing the silage.	Good upland meadow grass.	Not tried.	From 10 to 15 lbs. given to cattle in lots of 100 lbs.	From 10 to 15 lbs. given to cattle in lots of 100 lbs.	To all cattle and some given to horses.	No. 1 risk was the best and cheapest put together. I consider this the best weighing you could do, as there is no damage on top, as with stone, and requires no roof.



Name and Location.	Number of Silos.	Dimensions of Silo—Length, Breadth, Depth.	Materials of Silos.			Weather Destroyed or not.	Situation.	How Storage was made without a silo, and how?
			Walls.	Floors.	Roofs.			
<b>KING'S COUNTY—continued.</b>								
W. P. H. L. Vaughan, Esq., R.R., Golden Castle, Rossmore.	Seven.	(1) 18 feet by 7 feet 6 inch deep. (2) 16 feet by 14 feet 6 inch deep. (3) 14 feet by 12 feet 12 inch deep. (4) 12 feet by 10 feet 12 inch deep. (5) 10 feet by 8 feet 12 inch deep.	Mixed work. Do. Do. Do. Do.	Some concrete Asbestos-cement. — — —	Slates. Do. Do. Galvanized iron. Do.	No. Do. Do. Do. Do.	Above ground. Do. Do. Do. Do.	Yes. Silage stored 20 feet by 20 feet, filled up if looking high, then loaded with stones, 14 cent to square foot. There was very considerable waste, but the silage was very good.
Henry C. White, Esq., J.P., Charleville, Rossmore.	—	30 feet by 30 feet 6 inch deep.	Stone.	Gravel.	Sticks and clay.	No drainage required.	Partly below and partly above.	Made in stacks in the open field.
<b>LONGFORD COUNTY.</b>								
J. M. Wilson, Esq., J.P., Carrigrohane, Edgewoodstown.	—	—	—	—	—	—	—	Yes, two stacks, dimensions of which are 20 feet by 10 feet by 5 feet high. The stacks were built at one end of hayrack, under cover, as the silage was required.
Dr. George E. Johnson, Esq., J.P., Rathfriland, Leixinchowry.	—	34 feet by 30 feet 6 inch to 6 inch deep.	Stone quarry.	Spitral floor of limestone quarry.	Thatched, shaped with hay.	Open. Heavy, naturally dry.	Partly below and partly above.	The drainage is made in cleared quarry of limestone, dry, with natural drainage to rock. At foot the open-surface ground through which the drainage runs, and it runs to surface, when the drainage is the silo and when towards the open ground, as long as the drainage is there, it is done with a subsoil, and when a few days again the cattle can go on it.
H. M. O'Sullivan, Esq., R.R., Glenties, Edgewoodstown.	—	—	—	—	—	—	—	Made without a silo. No. 1 on the ground. Under cover, so a built up as to prevent rain. It was not truly covered, weighted at intervals by stones and finally covered with straw.
" " "	—	—	—	—	—	—	—	In stacks.
<b>LOUTH COUNTY.</b>								
Miss E. E. Spillane, Esq., Glenties House, Carrington.	One.	12 feet by 11 feet 6 inch deep.	Masonry.	Cement.	Slates.	Not damaged.	Above.	No.
M. Collins, Esq., Ballymore, Carrington.	—	—	—	—	—	—	—	Feedings, about 2000, made in year with silage and straw.



LEINSTER—continued

Number of days completed in silage.	Material put in silo.	Temperature.		Quantity of ensilage in tons, given to Cows per day.	To what description of cattle (if to horses stable up, and how much.	Remarks.
		Grassland.	Average Heat for first 10 days.			
—	—	—	—	14 stone silage with 1 lb. colts on silage when on grass.	14 year old heifers.	—
Half days.	Old meadow grass.	Did not last.	Temperature.	As much as they care to eat.	Five cattle and dairy cattle, not given to horses.	Made about 10 tons of ensilage in this farm, all of which is consumed.
Of and as for about eight weeks.	Various, oats (green), rye grass, old meadow, green oak amongst plantings, etc.	20 degrees.	About 100 degrees.	About 20 lbs.	Skilled heifers and cows; some horses about 1 lb. a piece.	I consider the ensilage excellent. The pressure was done with a screw, a water roller and tramping; it is quite hot enough as the. The color is dark brown, with a very sweet smell, the cattle preferring it very much to hay, and eating it with great avidity.
The making of the silage extended about 2 days.	Old meadow soft grass.	Not tested for heat.	Excessive heating caused by adding two or three feet of grass after nine days, it was discovered for a time I have got it heated with about 10, except to foot.	—	I give it to all sorts of horses and cattle, and give some hay and straw, one half silage and then straw or hay. I have not used it with horses.	I have used it largely with breeding cows, giving them as much as they like in July milk, and hay, and 1 to 2 lbs. oats to each cow per day. I found the lambs as healthy as ever, and then, and the young lambs eat silage with three weeks or a month old. The dairy children I find it silage with milk in the morning to stir the milk off them, which is necessary if intended for sale in spring, but not if kept by cows. I am giving ensilage on a small dairy at Mount Pleasant, Co. Lifford. I have three silos made in two weeks, in all holding 70 acres natural grass. I have fed them more for the last year—about 100 to 150 horses each winter—with half silage and half hay, and no deaths or ailments except the hay dropping off in the spring, and leaving their systems for sale in spring fair, but in no way spoiling them from feeding in summer if kept for own use. This is fed for last three years. A fine silo in 1865—10 horses with 7 lbs. of silage each, two weeks silage and one of hay, so that they mostly became fat. In 1867 I fed it in some way, and finished them off for butcher in about six weeks, then paid 10s. for six months. I have never about it, which I intend to drink out as soon as I have used to 4 lbs. of silage each, 2 lbs. of concentrated oatmeal 2 lbs. per day. I expect to finish them from April to end of May on Enghelsh, etc. For the improvement of fattening I find the best meadow grass and hay mixed. Working calves do remarkably well on silage. There is a great extension of stock since all over these parts.
—	No. 1—Grass and oats. No. 2—Grass.	Second	Not kept.	Given to 4 year old bullocks (heifers) at 1 lb. with silage hay.	Store cattle and springers.	It appears to me that nothing is picked by use of roller or press in making silage etc., and the point of such operations will cause the ordinary milk farmer from using ensilage, which would I believe prove of great benefit to the smaller farmer, making the place of the very expensive and enormous crop of turnips.
No account kept.	Grass.	About 100 degrees.	From 80 to 100 degrees.	About 20 lbs.	Store cattle.	The ensilage was soon on account of having taken the grass out of a field, and there was considerable waste.
From . . .	Grass and white clover from an old meadow.	—	—	—	Milk cows.	The ensilage is very good this year, the grasses and clover perfectly preserved, a light brown color, very sweet smell, and the cows eat it greedily. They get as much as they can eat the last of night. I did not try the temperature.
14 days in all.	Dalton ryegrass, 1st, 2nd, and 3rd crop.	—	Kept as much pressure as possible in. Don't know heat accurately—sil about 100 degrees.	—	All descriptions. Horses got as much as they could eat. About 2 to 3 stones each a day, with 20 lbs. of straw.	Do not use Pearson's roller now. Find Johnson's mils and easily worked.







## WINSTER—continued

Number of days occupied in giving feed.	Material's put to use.	Temperature.		Quantity of Food given in Oats per head.	To what description of Oats? If to heavy straw, and how much.	Remarks.
		Greatest Heat.	Average Heat for five to ten days.			
—	—	—	—	—	Mixed cattle; not so common.	I have made silage feedings since in the open fields. The cattle are eating greatly of silage from stacks in three days. I do not think any two stacks were made within under the same conditions. They were all made of hay, some of them made to such a degree that "the stack hardly took a single drop in a few feet and left a few inches, very much of a silage. All crops are covered with about 12 inches of soil dug from around them. They were in also and have in less than a week, in fact by 10 feet wide, and single stack at the ends, and down to 10 feet by 10 feet, also some smaller at the ends. They were all made now about 7 feet high. I have made up some to make me to reply to some of the queries and had no appearance in feeding afterwards as regards silage. I compare the quantity I made this season at over 10 tons, and think the practice of making silage will be found most beneficial.
Made in wet weather when we could not approach the harvesting. No 1 was completed in 4 days; 2 & 3 and 4 completed in 12 days each.	Old meadow grass in each stack.	None kept.	43 lbs. to stalked bullocks in 3 lbs. of hay.	40 lbs. to stalked bullocks; some to horses.	No. 1 was entirely consumed by stall-locks. Nos. 2, 3, and 4 is being fed to ordinary bullocks.	No. 1 was entirely consumed by stall-locks. Nos. 2, 3, and 4 is being fed to ordinary bullocks. Each stack, as pronounced by good judges, contains good silage, which is eagerly devoured by the cattle eating it. We have 12 inches of waste on outside of each stack; more top or bottom.
We 1 plant a stack in 10 days each.	Meadow grass and some cut off track parts of pasture fields.	About 110 degrees F.	Stacks up to 10 degrees F.	—	Milk cows, dairy cattle, and some not so common.	Stacking is a most excellent mode of preserving crops which otherwise would be completely spoiled in bad weather. In fact, wet weather is the worst for silage. We used the better lot of crops of grass, also very coarse grass from silage, to make a stack of silage, which, if made late here, silage would come out at all, but in silage is greatly eaten. Of course the better the material, going to the better the silage coming out. I have been now using it for five seasons and I am confidently recommended to be being particularly healthy for several years of all ages. I am quite persuaded of the economy of the process, as I believe the same amount of grass would feed as per head, more cattle than it would in hay.
Five days.	Old meadow grass.	Never or isolated.	Never weighed.	Stacked; horses very fond of it.	—	There is a slight loss on the outside but the rest of it is good and good, in fact eaten and horses will eat two stacks of it if you so them.
About six.	Good old meadow grass.	I can't answer these questions.	As good as they would eat on a full pasture.	Stacked; cattle get to eat it. No dairy cows.	—	I have found the process so good that I shall not in future grow any hay, except for horses. The silage answer will be made whenever on top or bottom, about 10 inches or so, and high. My stacks about 10 feet in diameter, and 12 or 14 feet high.
Two days.	Ordinary meadow grass.	Not so much.	Not weighed, but given three daily.	Cows (dry) and horses being well fed with it about 100 lbs. and 100 lbs. of hay. Several cows.	—	Being made at an ordinary I was unable to watch process of fermentation carefully, but did not allow a high temperature. There is some waste, not much, at sides, but more than I would wish under covering of hay. It was not thickened and perhaps made a 1000 lbs. per 1000 lbs. of hay. I have tried to get sharp in each but they will not take it.
—	Meadow grass.	—	—	—	—	—
—	—	—	—	—	Stacked with silage of every age, to the per day to young horses' small quantities.	I made stacks first, intending to fill up horses later on, but weather getting late, made hay instead.
Five days.	Old meadow grass.	Heat not tested.	About 30 lbs. with one run, and 60 lbs. with silage and 30 per cent.	Agel eaten.	—	I have given it to young calves from 2 weeks old, and that they eat well, and do well on it, with a 100 lbs. dry hay, and silage milk.



Name and Residence.	Number of Silos.	Dimensions of Silos—Length, Breadth, Depth.	Materials of Silos.			Whether drained or not.	Situation.	How Feedings were made without a silo, and how?
			Walls.	Floors.	Roof.			
<b>NEATH COUNTY—continued.</b>								
Arthur Eyreman, Esq., 18 Longford Terrace, Newcastle-on-Tyne.	One.	—	—	—	—	—	—	—
J. J. Meyer, Esq., D.O., Newcastle-on-Tyne.	Two.	(1) 20 feet by 20 feet, 12 feet deep. (2) 18 feet by 12 feet, 12 feet 6 inches deep.	Bottom, half stone, top half brick, plastered with cement. Stone, plastered with cement.	Natural bottom covered with gravel. Earth and lime.	Wood, complex and also covered with wood planks 4 feet long on top of walls. Wood and slates.	Not. Not.	11 feet below and 4 feet above. Above.	Yes, in which is fed corn and 11 feet broad, covered with "Johnson" straw from.
Matthew Ward, Esq., D.O., 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.	Three.	(1) 41 feet by 12 feet, 12 feet deep. (2) 27 feet round, 11 feet 6 inches deep.	Plaster, . . . Black in field, . . .	Cement, . . . —	Slated roof, . . . —	Waterproof, . . . No, . . . No, . . .	On surface. Do. Do.	Two silos.
R. F. Farrel, Esq., 10, Myrcroft, Leeds.	—	—	—	—	—	—	—	All our cattle had been made in stacks of straw in an 18 yards in diameter. When built, the straw was in a stack on the top in a depth of from 12 to 15 inches.
John A. Ballerby, Esq., Newcastle-on-Tyne, county North.	—	—	—	—	—	—	—	Feeds like a pile of hay, except that it was kept in the straw and was about 4 feet high, and was weighed, wet and on top covered with clay. It was well trodden during course of the year.
W. R. Radcliffe, Esq., 11, Newcastle-on-Tyne.	—	—	—	—	—	—	—	Yes, in every all stacks, covered with clay, 10 feet to 12 feet diameter, 12 to 15 feet deep.
Samuel T. Thomas, Esq., 11, Newcastle-on-Tyne.	Four.	(1) 20 feet by 12 feet, 12 feet deep. (2) 20 feet by 12 feet, 12 feet deep. (3) 20 feet by 12 feet, 12 feet deep. (4) 20 feet by 12 feet, 12 feet deep.	Brick, stone, masonry work, and plasterwork. Do. . . . Do. . . . Do. . . .	Concrete, . . . Do. . . . Do. . . . Do. . . .	Galvanized iron. Do. . . . Do. . . . Wood, . . .	Not. Do. . . . Do. . . . Do. . . .	Partly below. Do. Do. Below.	Three stacks, weighed with our 100 lb. scale, 10 feet high, 10 feet by 12 feet high, 10 feet by 12 feet high, 10 feet by 12 feet high.
Thos. Kennedy, Esq., Newcastle-on-Tyne.	One.	14 feet from out to out by 12 feet outside depth, 12 feet when packed, about 1 foot.	Stone, . . .	Concrete floor, walls plastered with concrete.	Galvanized iron.	Not drained.	Partly below.	—
Wm. Fuller, Esq., 11, Newcastle-on-Tyne.	—	—	—	—	—	—	—	Feedings made in a stack, called by Farmer's name.
Mr. John F. Dixon, Esq., Newcastle-on-Tyne.	Three.	40 feet by 12 feet, 12 feet deep.	Concrete, . . .	Ground and for cattle to go on.	Corrugated iron, circular.	Not.	Partly below, as to 20 feet from high level and take out from roof.	A round stack with earth above and below.



LEINSTER—continued

Number of silos contained in silage also	Material put in silo	Temperature.		Quantity of silage in the given 10 cattle, per day.	To what descriptions of cattle, if to be used as such, and how much.	Remarks
		Original Heat.	Average Heat 400 lbs to days.			
—	—	—	—	—	—	Last season I had a meadow of 16 Irish cows made up in an Aylsherry Old stone stack, in fact by 17 feet. The time of making was due south. The produce was good, of which together with an early and some hay, I fed 18 cattle from February till 1st April. There was a large amount of waste (possibly air even better, as I placed straw on top, which prevented even pressure, as much stuff were on top) but I fed them in the silage. Then, I should state, was old meadow. I also had 1 fresh cow of old meadow built in a round stack, and weighed with some coarse, dry, and water. The produce was quite as good as A. D. Co's meadow stack. I used the greater portion of this with 18 cattle, with satisfactory results. The amount of waste was not nearly so great as in A. D. Co's silage stack.
—	Old meadow grass	—	—	From 15 to 20 lbs.	Old cow and steers.	—
About six weeks, but only dried from May to June, when weather was not to make hay.	All grass.	10 degrees.	10 degrees.	No fixed amount as I fed by various experi- ments.	Dairy cows, young stock of all descrip- tions, always in silage.	I have had the silage work for several years, and found it the greatest possible advantage; in fact, I could not see how without it. The few cattle of a good season, the cattle would be kept over from them, and I never had such good condition before, this is my first year for silage.
Various times according to work	Mustard and oats, green, meadow grass	10 degrees.	10 degrees.	20 to 30 lbs.	The produce, made of must- ard and oats, was given to cattle, with honey, shir- dons and a small quantity of hay, and fed them.	We also give cattle to some cattle in covered road during the winter with water; but cattle do not like it with silage. Those of the cattle, when made quickly, did not have such well as those that were made slowly, and the weight put on as soon as breaking was finished.
—	Green grass.	—	—	—	Wet cattle.	—
Tufted from hay.	Green, vetches and oats.	Expenditure to tell.	—	Never weighed all they eat.	Both cattle and sheep were on top land; not to be used.	It is my opinion it is impossible to get the correct heat of a stack of silage, as on account of the air penetrating where you put it the heat for the summer it will get much hotter than that anywhere else. We never see one here.
10 days to 20 days.	Trifolium, in- carnations, sorghum, vetches, grass, oats, beans, wheat, rye, barley, etc.	20 degrees	—	20 lbs. to 30 lbs.	Every descrip- tion of cattle and sheep, and also horses were on work.	If silage is to be made in stacks, the stack should be drawn up on to the top, when one man can easily spread the load and it may be with a bull or this a horse could spread the edges to compress them. A horse will a few feet from stack will suffice to cover both top and sides. It is better with a horse, and there will than be no loss whatever. I continued to mention that the gateway of green oak easily be thrown up on top of stack when done with.
10 days.	Good meadow grass.	Never tried.	temperatures.	Did not use any of it yet.	—	This is the first time we ever tried cattle, and as the stack is not yet open, I cannot report on the result. When finished, the stack was 12 feet high, and it sank to about 7 feet.
—	Good old meadow grass	—	—	—	I gave it to all kinds of horns cattle; young calves are very fond of it.	—
About three weeks, but not made.	Old meadow grass.	10 degrees.	10 degrees.	About 10 lbs.	Two year old bulls.	The cattle seem as if they could not get enough cattle, and it is without the slightest waste, and are thriving remarkably well.
—	Green, oats, and vetches.	—	—	—	Some cattle on grazed dairy cattle in silage.	On the top of the stack in silage I have grown the finest mush- rooms by planting spores in holes of earth.



Name and Residence.	Number of Sites.	Symptoms of Site—Length, breadth, depth.	Materials of Site.			Whether Drained, or not.	Situation.	Has Drainage been made within the site, and by?
			Walls.	Floors.	Roof.			
<b>KEATH COUNTY—continued.</b>								
R. F. Butler, Esq., J.P., Newburgh, Warren.	One.	40 feet by 10 feet; 15 feet deep.	Bricks.	Gravel.	Iron.	Basin, dug under door.	Half under, half over.	—
Francis Lambert, Esq., John Port.	One.	10 feet by 6 feet; 18 feet deep.	16-inch brick.	Concrete.	Iron.	Yes.	Partly below.	Yes, in a tank, with Johnson's patent pump.
R. E. Myers, Esq., J.P., Arlington, Warren.	—	—	—	—	—	—	—	Yes. Two Johnson's patent pumps. No. 1. Compressed by screw, with wire ropes about 2 feet apart. No. 2. Compressed by screw and drag ropes about 2 feet apart.
" "	—	—	—	—	—	—	—	Yes. One pump, the long, made and weighed in New Brunswick, with bearings weighted with horse lead with silver attached to end of levers. (It. Two round shafts, 10 inch in diameter, tramped by hand and women, and weighted with work.
R. B. Friedbergert, Esq., Black Oasis, Warren.	Two.	40 feet by 10 feet; 10 feet deep. 27 feet by 10 feet; 26 feet deep.	Stone. Do.	Clay. Do.	Galvanized iron. Do.	No. Do.	Partly below, one hill from surface.	No.
James E. Donovan, Esq., Salem.	Two.	30 feet by 10 feet; 10 feet deep. 24 feet by 10 feet; 24 feet deep.	Stone and mortar. Do.	Concrete. Brick.	Corrugated iron. Do.	Not drained. Do.	8 to 6 feet below surface. Level with surface.	No.







Name and Residence.	Number of Sties.	Dimensions of Sties—Length, Breadth, Depth.	Materials of Sties			Whether Drained or not.	Situation.	Has Pasture been made without a Stie, and how?
			Walls.	Floor.	Roof.			
<b>KEATH COUNTY—</b>								
Robert Fowler, Esq., Ola, Keshmulla, Keshm.	One.	30 feet by 12 feet; 12 feet deep.	Stone and mortar, faced with cement.	Gravel.	Corrugated iron.	Not drained artificially.	Partly below surface. The side is built in the side of a gravel hill, so that it can be occupied from the bottom, and filled by rain drainage down at top.	Yes. Inside houses, and two full stacks were pressed with wire rope (Gibson's Patent). The other was filled with clay and gravel. The first is an oblong stack 12 feet by 12 feet, and it now averages about 3 feet high. The other is a round stack, 12 feet in diameter, and is about 4 feet high at present.
Mrs. Michael Freeman and Son, Keshm.	—	—	—	—	—	—	—	Yes—on a stack.
T. Bethwell, Esq., D.L., Keshmulla, Keshm.	—	—	—	—	—	—	—	In a stack, on the water system. It is 30 feet long by 12 feet broad, 12 feet high. It was made by shoring across a top, and watched with very frequent rain, filled with water, and is making.
Colonel John Golding, D.L., Keshmulla, Keshm.	—	—	—	—	—	—	—	No. 1 Oblong stack, covered with horse manure in the worst way. No 2. Circular stack, well shored up on the outer edge with the main, while making. No 3. Circular stack with incised stone on one side, on which the horse and manure were drawn up and passed right over the stack with each load.
<b>QUEEN'S COUNTY.</b>								
Mr. James Hux, Farm Foreman, for Capt. Hux, Thymall, De Vaux, Abbeyferry.	One, 16 three parts.	42 feet by 12 feet; 12 feet deep.	Limestone, covered.	Gravel.	Corrugated iron.	Not.	Partly above so partly below.	In open stack, made the same as is done with the exception of pressure. Length of stack, 42 feet, breadth, 12 feet, depth, 12 feet, about 20 days made.
Right Hon. Lord Glenadown, D.L., Glenadown House, Ballynash.	Three.	42 feet by 22 feet; 20 feet deep. 12 feet by 12 feet; 20 feet deep. Old quarry— 12 feet by 12 feet; 20 feet deep.	Concrete. Rubble.	Concrete. Barren.	None. None.	Not. —	Partly under surface.	No. 1—Made in wet weather, well incased and watched with water and branches. No. 2—Made in wet weather, well incased and watched with water and branches.
Arthur Neville, Esq., Ballynash, Ballynash.	One.	42 feet by 22 feet; 20 feet deep.	Stone.	Flint.	Stack of straw.	Drained.	Below surface.	No. This is a better system and that from top, plaster and even material, and weighed with stones.
William Byrne, Esq., J.P., Ballynash, Ballynash.	—	—	—	—	—	—	—	Yes, in a stack. One made with John's patent, with wire rope under pressure without any pump, and one made by drawing up on top as long as the horse will draw it, then made out of and thrown up, being shored over with old oak logs, and covered with a 12 feet deep of earth.



## LEINSTER—continued.

Number of days occupied in making silage.	Materials put in silo.	Temperatures.		Quantity of silage in lbs. given to cattle per day.	To what description of cattle, if to horses, cows, &c., and how much.	Remarks.
		Greatest Heat.	Average Heat for 24-48 days.			
About 40 days from turning to, until weight 1200 lbs. was reached. When reaching this point in silage, and others when only 6 days more were given to silage it.	M. & A. & O. & W. grass.	No.	known.	30 lbs. to each head.	Half-fed cattle and one-year-olds. None has been given to horses.	The fields were made with meadow grass; each of these covered about two days in building. There is a thermometer in the strong room. Greatest heat has been 140 degrees. Average for first ten days after completion, 120 degrees. The second week is 107° being given to more cattle in the field. All my silage this year is sweet.
7 days.	Upland meadow.	170 degrees.	167 degrees.	30 lbs.	Store cattle.	We consider well-made silage superior to hay. Our cattle eat it very well, and it keeps them in good condition. We used Peasner's usual rule when making our silage, and we consider the secret to having good feeding silage is to have the pasture free from the common parasites of the cow. We made it in 1890, and exhibited a sample of it at the Spring-Field Show.
11 days.	Old meadow grass.	160 degrees.	160 degrees.	30 lbs.	Store bullocks, dairy cows, and calves.	About 100 tons of grass was put into the stack, resulting in about 40 tons of silage, allowing for waste, when served. Cattle eating—something between sweet and sour—tasting in sweet. In colour—light brown. Cattle eat it readily, and seem to thrive on it. It is only given to dairy cows, and in the field.
No. 1-4 days. 1-4 days. 1-4 days.	No. 1—Fourteen months. No. 2—Some as No. 1. No. 3—Clover.	No. 1—180 degrees. No. 2—180 degrees. No. 3—180 degrees.	No. 1—167 degrees. No. 2—167 degrees. No. 3—167 degrees.	No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.	No. 1. Three year-old calves intended for early grass feed. No. 2. Young store stock, of all ages. No. 3. Horses and bullocks same as No. 1.	No. 1. Although the time occupied in making work is only seven days, as I only worked at some two days each week, the actual work of making, viz., from start to finish—in three weeks and five days. Silage is good and sweet, made during extremely wet. Last on silage and early—100 tons bottom, and top of No. 1. No. 2. Three months of silage, and the condition is better very well on it, it being also the best expensive to make. It is worth of a more extensive trial.
About 10 to 12 days.	Grass, vetch, clover.	No registry of	last kept.	From 10 to 20 lbs. or more, according to the constitution of the beast.	None given to horses.	I consider it is not in worse condition in corn, and I don't like to feed with grass cattle.
Filed at 10 to 12 days.	Old meadow grass.	Did not use a	thermometer.	1 stone each per day.	Milk cows and young cattle.	Our silage is considered good sweet silage, and all cattle are very fond of it.
Don't say.	Bough grass.	Can't say.		Can't say No. of lbs. given to cattle would not.	12 and 1 year old cattle.	Owing to the wet season of 1890, had to make silage, in which I used a quantity of young grass, and I don't like to feed with grass cattle.
—	—	—	—	—	—	Johnson's press is certainly the best way I have seen to save waste, but it is so expensive, one being necessary for each stack, that it is questionable if it is worth the cost. The silage in the other stacks is however quite as good, but there is from 1 to 12 inches of waste on the sides, and from 4 to 6 on the top. As the roller and plough (Peasner's system) help to press the grass more rapidly, that system saves a certain amount of waste, as the plough will not go so deep, but it is not so good as the roller, which is a good saving on a side of fresh cut grass without any previous weighing. It saves no waste at the sides or top, and the silage at the sides is quite as good as the roller. I have not yet spread the stack which has been covered with earth.



Name and Residence.	Number of Hens.	Dimensions of Run—Length, Breadth, Depth.	Materials of Run.			Whether drained or not.	Situation.	The Runways keep made within 1/2 mile, and how?
			Walls.	Floor.	Roof.			
<b>QUEEN'S COUNTY</b> —continued.								
William Turner, Esq., D.L. Brookly Park, Kendalry.	Two.	(L.) 15 feet by 15 feet; (S.) 15 feet by 15 feet; (E.) 15 feet deep.	Slope	slack to open	slack.	Not.	Altogether above.	No. 1—2 a slope slack made at Kendalry Park. Ground is low, with some and no (natural) protection; drainage system. No 2—Slope slack at Kendalry, near Kendalry, Co. Dub. was made with Potters' clay, and weighed with stone.
John B. Threlton, Esq., St. Paul's.	One.	—	—	—	—	—	—	Made without stone; square slack above surface, weighted with stone, and loaded up with hay.
Major-General W. Murray, D.L. Ashfield, Monaghan.	—	—	—	—	—	—	—	Without stone, as stone is used by Kennedy's drainage system; 24 feet long, 12 feet wide, and 8 feet high, when completed ground level to 1 foot below.
Lt.-Genl. R. White, D.L., Aghavea, County Wick.	Eight.	Average about 14 feet by 12 feet by 12 feet deep.	Walls.	Concrete.	Timber.	Not drained.	Partly below.	Yes; in stone retained during the making, and when completed with stone of wood.
Henry Parnham, Esq., Barnagh, Mount-Rath.	One.	14 feet by 4 feet; 12 feet deep.	River stone and Portland cement.	Concrete.	Yellow pine.	Drained.	In side of bank and below surface.	None.
Chas. F. Hamilton, Esq., Barnardstown, Keweenaw.	Two.	No. 1—37 feet by 12 feet 6 inches; No. 2—37 feet by 12 feet 6 inches; No. 3—37 feet by 12 feet 6 inches; No. 4—37 feet by 12 feet 6 inches.	Walls concrete, lined with Portland cement.	Concrete.	Galvanized iron.	Drained.	Below surface.	No.
Henry G. White, Esq., D.L. Charleville, Roscom.	Five.	14 feet by 12 feet; 14 feet deep; 14 feet by 12 feet; 14 feet deep; 14 feet by 12 feet; 14 feet deep; 14 feet by 12 feet; 14 feet deep; 14 feet by 12 feet; 14 feet deep.	Stone.	Stone.	Galvanized iron.	Drained.	Below.	Made in stone in the 1840's.
Chas. Walsby, Esq., D.L. Monaghan, Monaghan.	—	11 feet by 14 feet; 12 feet deep.	Stone.	Concrete and gravel.	Slack.	Undrained.	Partly below.	Slack at foot by 12 feet laid down—1 foot high the last day and added to every time the last day in the top, this plan was continued until the ground was a little above water level. The top was covered with working hay, and weighed with hay; 1 would be made.
George Hulse, Esq., County Wick.	One.	14 feet by 12 feet; 12 feet deep.	Stone.	Field.	Hay.	Not.	On surface.	Yes.
John Lister, Esq., D.L. Ashfield, Ashfield.	—	—	—	—	—	—	—	Yes, on a slack.



## LEINSTER—continued.

Number of days required in silaging this	Material put in this	Temperatures		Quantity of Ensilage in this, given in Cattle per acre.	To what description of Cattle, if to horses, sheep, and how much.	Remarks
		Greatest Heat	Average Heat for 24 or 30 days.			
No 1 stack 4 months; No 2 stack 4 days.	No 1.—Chimney clover, 200 lbs per acre; No 2.—Clover, 100 lbs per acre; No 3.—Maiden cut grass.	Not taken.	Not taken.	About 30 tons.	Shore cattle, 1000 lbs per acre.	Both systems did well, very little waste. The great convenience of the system given by the facility with which manure is removed and the system, when stock is added to at long intervals. The silage system requires continuous work, and when finished heavy weight of stones or other material.
Two.	Scarlet clover and oats.	About 140 degrees.	About 140 degrees.	Did not ensilage.	Shore cattle.	Heavy rain set in. Cattle did not proceed to, in fact preferred it to the hay; but it is for some time I would prefer hay well stored, as I think it would go further.
No 1 stack 1 week; 2 days in stack.	Grass off meadow of 100 lbs per acre, with some barley straw, 100 lbs per acre, lodged through the wire.	Not taken.	Not taken.	14 tons, 10 lbs, 100 lbs.	Shore cattle, 1000 lbs per acre.	The ensilage turned out remarkably good, and is taken by the cattle with relish. Not more than 1 or 2 inches of the top of the stack, and 1 or 2 inches of sides (which were clipped later), has been found unfit for food.
No register kept.	Grass and rape.	No register kept.	No register kept.	No record.	In store and in the silage.	The ensilage made in stacks and weighted during the week (and when completed) with heavy stone or wood, but proved so successful and was so much better, that for the future I intend to similarly make and weight the ensilage in the pits.
About two weeks.	Coarse meadow grass.	Not taken.	Not taken.	1 ton.	Cattle, 1000 lbs per acre.	The silage was filled in the first few days, then weighted down with stones in stacks and boxes on 4-inch rails, and in course of 10 days was so opened and filled again which had fallen—about 1 foot—then stored up in baskets and weighted as before, and opened in February and the upper portion for a feed was found to be sour, and would not be eaten, but the remaining portion was eaten by the cattle. This occurred two years ago and was not filled last season.
No record.	Grass.	No record.	No record.	No record.	Cattle, 1000 lbs per acre.	I have not as yet opened the silage. I find it is better to keep the silage in the silage, as once cattle have tasted it, they do not care to eat hay.
4 weeks.	Old meadow grass.	—	—	As much as they care to eat.	Cattle & horses.	I have about 100 tons of ensilage. I find it is excellent fodder for all descriptions of cattle.
4 weeks.	Old meadow grass.	Not recorded.	An iron bar was stuck into the grass, and when it became too hot to hold, it was stuck into the bottom of the silage, and when it was cold, it was taken out.	7 tons, now to be consumed at grass.	1 year old cattle.	When the last layer of grass is added to the heap, it should be immediately covered and weighted. This was not done to the last layer, and in consequence, two feet deep of the top 4 days after put on the grass, and when the weather did not permit of drying, I put over the top a layer of hay without waiting for the last layer to be heated; but the larger the quantity put on at one time the longer the intervals between the additions. The silage good, sweet, and healthy through and uniform both in color and taste.
4 days.	Old meadow grass.	Not taken.	Not taken.	Not recorded.	Shore cattle, 1000 lbs per acre.	The grass was put together 4 days, say 1 acre; then on 1 acre more. In 4 days after put on a like quantity, weighed heavily down with stones, and covered with hay. Not opened yet.
No record.	Old pasture grass.	No record.	No record.	10 tons, to aged cattle (1000 lbs per acre).	All aged cattle and horses.	My belief is that a roller is unnecessary or any other system of pressure, and that the best system is to weigh down with stones, and then put on a like quantity, weighed heavily down with stones, and covered with hay. Not opened yet.



Name and Residence.	Number of Sites.	Dimensions of Sites—Length, Front, Depth.	Materials of Sites.			Whether drained or not.	Situation.	How drainage has been made without sites, and how?
			Walls.	Floor.	Roof.			
<b>WESTMOUTH COUNTY.</b>								
Mr. John Jack, Howard, Mo. The right line the Hall at Lonsford, Kansas. No. 1, Galien postcard.	—	—	—	—	—	—	—	12 posts put 4 feet deep in the ground, forming a square, in which plank is sunk, made from a sheet of lead, about the same size as to be firmly packed.
William Evans, Esq., J. P., Olanita, Mo. Kansas, Galien postcard.	—	24 feet by 12 feet; 12 feet deep. 24 feet by 12 feet; 12 feet deep. 24 feet by 12 feet; 12 feet deep. 24 feet by 12 feet; 12 feet deep.	Rock is open. Do. Do.	Ground. Do. Do.	Boarded. Do. Do.	On surface. Do. Do.	On surface. Do. Do.	All made as stacks except one. I see signs of rain when needed when more and board over and weight with stone. Stone is heavy laid over the weight with stones. I prefer keep drainage and make it with that view. Nothing could be better.
Mr. H. Mack Howard, for Capt. W. L. Howard, Springfield, Ar., Kansas. No. 1, Kansas, Galien postcard.	—	24 feet by 12 feet by 12 feet.	—	—	—	—	—	Yes. In two stacks, wooden, covered except posts and in stacks. Small animal sometimes passes.
Joe. McOleary, Esq., Fairview, Mo.	—	—	—	—	—	—	—	Both made underground as stacks and weighted with clay and stones.
John Wilson, Esq., J. P., Lawrence, Mo. Kansas, Galien postcard.	Three.	(1) 40 feet by 20 feet; 12 feet deep. (2) 16 feet by 12 feet; 12 feet deep. (3) 12 feet by 12 feet; 20 feet deep when finished, but fell in two months to 8 feet.	—	—	—	—	Eight in a bar shed. This year will build in field where grass is mowed.	Yes; in stacks. By building in the same way that I saw, with some more holes at present. Some are quite rotten covering. I built No. 1 in the fall, and it is so good and secure that in the fall.
W. N. Fowler, Esq., At. Lawrence, Kansas.	—	—	—	—	—	—	—	Structure has been made in such form as last year, it left wide, and in fact built at present. Stack finished early in October, and built about the top. Kansas's house for present.
F. T. Rogers—Lawrence, Esq., J. P., Olanita, Mo. Kansas.	One.	20 feet by 20 feet; 24 feet deep.	Stone, faced with cement.	Cement.	Stone.	No.	Above surface, against hill.	Yes; in square or round, stacked, with 6 feet of clay on top, no water on top or bottom—water on surface is taken.
Robert Doughty, Esq., Lawrence, Kansas.	—	—	—	—	—	—	—	I made three but none is in the road square stacks of stone as long as I had the side of stacks well soaked, while being made, and as work is finished I had it in the shape of a shed on top and made of pottery, then top part of stack was all water in the water out.
<b>WEEKS COUNTY.</b>								
Dr. Geo. the Earl of Canterbury, Canterbury, Kansas, Galien postcard.	Two.	(1) 21 feet by 21 feet; 21 feet deep. (2) 21 feet by 21 feet; 21 feet deep.	Stone. Do.	Flint. Concrete.	Stone. Do.	Not drained. Drained.	Above surface. Do.	Yes. In all cases and built on hill, made about 100 feet high weighted with stones, planks, etc.



## LEINSTER—continued.

Number of days occupied in making silage.	Materials put in silo.	Temperature.		Quantity of feedings in lbs., given to cattle per diem.	To what description of cattle (if in horses also) and how much.	Remarks.
		Cooldest Week.	Average Heat for first 10 days.			
Worked at 2 stacks alternately every second or third day.	Exterior and plantation grass.	No record.		14 lbs. with other feed.	All cattle—made out well.	No rollers or weights were used till finished. The silage only thoroughly packed home against the sunny boards. Last year the stacks were weighted with 14 lb. of stone, which was most satisfactory, thus being as waste either on bottom or top. This year we weighted with hay, which has not done so well.
About 11½ days making, a day every 1½ days.	Old meadow grass.	Not examined as possible.	— kept as low as possible.	About 20, with cracked corn and cake, also per day.	Cattle in stalls for market.	To 20 heads I gave the foregoing quantities of corn and cake with ensilage, and about 2 stones turnips. To 10 I gave molasses, corn, and cake & the silage, and a little hay at night; never saw it do better. From the forward feeding larger than last year's silage, with ensilage, at 10 lbs. a day each.
Not calculated.	Meadow grass.	—	Not tested, but were too high in order weight of grass put on to make it.	20 lbs.	To store and fat cattle, also sheep. None to horses.	It is not necessary to floor or drain underneath ensilage stacked in the meadows. It will do well stacked on the surface. No need or covering is necessary on top, or rain seems to improve it, which I have proved.
6 days making silage.	Old meadow grass—poor quality.	Do not know.	—	20 lbs.	Store, springing, and milking.	Silage stack from 10 feet when finished to a foot.
—	Both upland and bottom grass.	10 degrees.	—	40 stone bullocks and 4 ewe lambs a day with a little hay. Very difficult to get them to eat hay, they are so fond of silage.	—	Last year was my first attempt in making silage. I made it in the garden with Pearson's roller. I succeeded very well. This year I made my stacks without any machinery, merely turning the grass. I built the stack about 4 feet high, allowed it to heat for two days, then went on with the building and tramping. The weight of the fresh grass setting was one growing force on the heated grass, and so on to the end. Nothing could be better than the silage I have. When the last gets up the grass gets soft and is easily compressed. A piece of iron silage was poured, run into the stack, and left in a few minutes, making a good thermometer. If it is as hot as to be only pressed in the hand lightly it is about 100°.
—	Young grass from older leaves in sheep pasture, second crop, and clover, and other grass from old pastures.	Did not measure the temperature, but night heat for several nights.	—	About 20 lbs. each to cattle and sheep, not much grass on the land.	Milk cows, young cattle, and not to horses.	My stacks this year have been remarkably successful, but I put no guarantee but what was good grass and young. The growing part of stack was made in July when it was impossible to make hay. It was finished after harvest with grass from a pasture that was cleared of stock in the beginning of July—very healthy strength—and has turned out splendid stuff. I look upon silage as the greatest "pull" stock feeders have had on my land.
—	Grass.	—	—	About 10 lbs.	Keenest cattle; it has been given to young calves in the field, who ate it kindly, and drove it in.	The silage from stacks, though good, is hardly of the same quality as that made in the hot sil, which comes out of a real silage grass as continued with that from the stack, which is of a much improved colour. However, cattle eat the latter well and have thrives well on it for the last three seasons.
7 days.	Good upland meadow grass.	10 degrees.	About 110 degrees.	About 20 lbs. with a little hay.	To cows, two and three years old but, calves, calves, and young horses out on grass; I also give it to ewes after dropping.	I used Pearson's Roller system in 1887 with satisfaction, but last year I applied dry process instead, and found it better. I believe dry process preserves it the better system, as by that means all danger of pre-heating is prevented if a reasonable weight of heating material is employed. Where dry or stones are used there is no necessity to buy expensive machinery for pressing stacks. I am going to press the two stacks I made last year, and all classes of stock, including sheep, eat it with avidity, and I believe are thriving better on it than on hay.
30, 1, 21 days; 10, 2, 4 days.	—	Temperature not tested.	—	On average 40 stone (10 lbs.)	All improved cattle and young horses; about 10 lbs. to each horse.	No drain has been made, but as no field has escaped from the door of the barn to which the drainage was put, it is probable the field has escaped through the floor, the grass having been put in very wet, and when rain was falling.



Name and Residence.	Number of Silos.	Dimensions of Silo—Length, Breadth, Depth.	Materials of Silo.			Whether Drained or not.	Situation.	The Stocking has been made without a Silo, and how?
			Walls.	Floor.	Roof.			
<b>WILKINSON COUNTY—continued.</b>								
Mr Robert Richardson, For Silo A, Kirk The Park Farm, Dover.	—	—	—	—	—	—	—	1 stack—Dimensions 21 feet long, 10 feet wide, 10 feet high. The pressure is made by chains which are attached from side to side and tightened by a screw. About 10 bags of straw are laid inside from within and then they are laid and some from outside from.
James Moffat Esq., J.P., Northland, Kilmorphy.	One.	—	—	—	—	—	—	Grass cut off machines, driven over in sweeping corn, and cleared afterwards, every load or two after being spread and broken, rolled with rollers.
<b>WICKLOW COUNTY.</b>								
T. Warden Esq., T. Warden House, Newborough-on-Wye.	One.	10 feet by 12 feet; 11 feet deep.	Stone and stone faced with concrete.	Same as walls.	Galvanized iron.	Drained.	Partly below surface.	No.
George Smith Esq., J.P., Lanes, Arklow.	Two.	10 feet by 12 feet; 11 feet deep.	Granite masonry.	Rock.	Corrugated iron.	No.	On side of a hill, so that the grass goes in from above and comes out along below.	No.
Captain Lewis Hall, R.L., Old Omeau Hill.	—	—	—	—	—	—	—	Yes. A stack on the ground, 20 feet long, 10 feet breadth, and when compressed about 22 feet high. Used 1000 lbs of straw and 1000 lbs of straw.
Charles W. Barker Esq., J.P., Glendalough, Rathfarnham.	—	—	—	—	—	—	—	In stack under a galvanized iron roof weighted with stones, spoked as much as about 2 tons of grass were contained. Stack built in two halves and stones placed on each side row.
" "	Three.	No. 1—10 feet by 12 feet; 11 feet deep. No. 2—10 feet by 12 feet; 11 feet deep. No. 3—10 feet by 12 feet; 11 feet deep.	Stone and mortar (concrete) finish. Do. Do.	Concrete. Do. Do.	Corrugated iron. Slated. Do.	No. Do. Do.	Partly below. Above. Do.	Yes, in a stack piled up grass trampled and weighed with clay bricks 10 lbs diameter; each 10 lbs diameter; each 10 lbs diameter.
W. Grant Esq., Esq., Ballinacorney, Blessington.	One.	12 feet by 12 feet; 10 feet deep.	Clay.	Clay.	Galvanized iron.	No.	Below, except about 2 feet raised with straw thrown on.	Yes, in a stack; straw is spread over pressure, covered with straw 10 lbs diameter; each 10 lbs diameter; each 10 lbs diameter.
Patrick Moore Esq., J.P., Moone, Kildare.	—	12 feet by 8 feet; 10 feet deep. Stack down from above 10 feet.	—	—	—	—	All above surface.	One stack, built up from a portion of hay bales, compressed by 2000 lbs of straw; loaded by hand in two, and used over each 10 lbs of 2 to 4 feet.
" "	—	10 feet by 12 feet; 8 feet deep.	—	—	—	Not drained.	On the surface.	Grass in the stack, built up from 20 feet high, and then covered with straw and weighed with stones; afterwards made a stack of hay in 10 lbs covering.



## LEINSTER—continued.

Number of days occupied in making silage.	Materials put in silos.	Temperature.		Quantity of Silage put in the silos, given to Cattle per acre.	On what description of Cattle; if in large stacks, and how much.	Remarks.
		Greatest Heat.	Average Heat for first 10 days.			
—	—	—	—	—	—	We are giving the ensilage to some cattle out on the field, and they eat it well, no waste; and the feed given with it, but they did not care for it. Made one small stack to compare with grass cut from woods and we got less out with any pressure; the cattle were very fond of it, and there was less waste in the cattle.
11 days.	Grass, timothy, clover, &c.	Not heated.	Never weighed.	Horred cattle, in moderate quantity.	Cattle did not like to the ensilage, but saw some of them that it pretty well, especially when the clover stands in it. I have only lately (with March) begun to use the silage.	
Two.	Old madow hay.	About 120 degrees.	About 10 degrees.	About 120 lbs.	Milk cows.	I highly approve of ensilage, as any cattle have never been in better condition since I began using it.
The stuff was put in as-much as I was able to grow and drive it.	Grass of an inferior kind and very green first.	Never ascertained.	About a stone (as first) in addition to each foot.	Milk cows. Not to horses.	There's no doubt that cows do well on ensilage; the milk increases in quantity and quality, and the butter improves in colour. The green for silage the cows did not care about, after having been fed on the grass silage for a week, but stored out in greenly.	
About three weeks at 20.	Grass from old pastures.	About 175 degrees.	—	From 25 to 30 lbs.	Milk cows.	The cows eat this ensilage with the greatest avidity, and seem to thrive well on it, but I give them some hay and roots as well. There is not the slightest loss on either milk or butter.
—	Tough grass from waste places.	—	—	—	Fairy cows and some cattle.	Ensilage very good, between sweet and sour. The stack was builtish old time. The cutting of the stems from side to side & down two rows two hours each shift. There was a waste in the making in one place, where the hay had not been properly made, but it was not much.
No. 1 one bush; No. 2 three weeks; No. three weeks.	Meadow grass.	No record kept kept as low as possible.	Temperature as possible.	Big cattle that spent getting nothing else; up to 70 lbs.	To give horses, milk cows, and calves, not to horses.	As I am absent from home the above is left in to the test of my memory; the measurements of the silos were sent to you last year. I would not send you this receipt from memory if you had not asked for reply at an early date.
About five weeks, and old.	Grass, timothy, timothy, and timothy.	120 degrees.	120 degrees.	Amount as above.	All stock, except horses.	Stack about some time building in light diffen, no waste being put on either side of the stack, and the material being made by adding fresh material (fine straw) when necessary. I feed unlimited quantity of ensilage to dairy cattle, and find it not only does not affect the taste of milk or butter, but in feeding these on ensilage, are conscious of raw transparency in the food, also, without allowing taste of milk or butter.
About three weeks, grass being put in on silage.	Grass from plantations and meadow grass, cut for hay, timothy, coming in to side.	—	No thermometer used, but from general feel temperature did not seem to rise over about 120 degrees.	Could not measure amount per bush from memory it is used.	Young store stock—sheep and calves—grass and silage.	The month of June being very wet, I made hay any days I could, and on wet days placed in portions of the meadow (old meadow) and not the new and phosphoric grass, making such light boards being placed on each layer to run the water off. The intention is to keep it very green, increasing in brightness as the time, and there after a month. Small stacks giving timothy, dried grass, orange and hay. Do not seem to care for silage. Milk cows do two year-old steers eat it greedily. I sent out to field, outside and inside, giving the cattle pick and what they like, leaving the rest to be scattered about the field. This silage stack being more for milk is too small for good profits, as the percentage of loss would be less in a larger stack.
4 days.	Fert upland old meadow and some water meadow grass.	—	—	—	Milk cows, calves, and some cattle, and one horse that is not able to eat hay.	Made it in a house once, but had much more waste on account of the rough walls not letting it press evenly.



## PROVINCE OF

Name and Residence.	Number of Silos.	Dimensions of Silo—Length, Breadth, Depth.	Materials of Silo.			Whether Drained or not.	Situation.	Has Earthen base made within a Silo, and how?
			Walls.	Floor.	Roof.			
<b>WICKLOW COUNTY—continued.</b>								
T. R. De Bussy, Esq., J.P., Greystown, Co. Wick.	One.	12 feet by 12 feet; 20 feet deep.	Concrete. Is a depth of 16 feet. The bottom 4 feet are made of wood. Boards are let into the concrete, boarded, and the concrete filled with cement.	Concrete.	Wooden.	Thoroughly drained.	7 feet below and 12 feet above.	No.
William Clarke, Esq., Rathmore.	—	10 feet by 12 feet; 12 feet deep.	4 inches concrete.	Concrete.	Galvanized iron.	Not drained.	Fairly better and partly above ground.	I have not made earthen without silo.
Charles G. Toland, Esq., D. J. Ballinacorney, Ashford.	—	—	—	—	—	—	—	—

## PROVINCE OF

<b>CLARE COUNTY.</b>								
Major H. A. Shafter, J.P., Kilmartin Ho., Kilmartinbridge.	—	4 feet by 12 feet; 12 feet deep.	None.	Earth on rock.	Stony slatted with reed.	No.	Above.	It has been made in a stack on the ground, three feet of grass being put on at a time, and then pressed with Downer's roller and weighted with stones.
Colonel R. A. Gore, Esq., Derrynore, O'Donoghue Mills.	Three.	8 feet by 16 feet; 24 feet deep.	Brick sides, well plastered with Portland cement.	Portland cement.	Galvanized iron.	No.	Above surface.	No.
Joseph Hall, Esq., J.P., Glacary, Ennis.	—	11 feet by 12 feet; 12 feet deep.	—	Hard earth.	Slates.	Drained.	On surface.	Without.
Major W. M. Mahony, Esq., Kilmacross, Tulla.	One.	12 feet by 12 feet; 7 feet 8 inches deep.	—	—	—	—	On rocky bottom; one end thick of grass over in open field.	—
Charles G. G. O'Donoghue, Esq., Ballinacorney, Tulla.	Two.	—	—	—	—	—	—	Made in stacks with Downer's roller in open field.
T. O. S. Mahony, Esq., Esq., Carrigrohilly, Quin.	—	—	—	—	—	—	—	In 1887 and 1888, I made small stacks. In 1887, I used Downer's roller. In 1888, I did not. In my opinion a roller is unnecessary. The stacks need only to be well trampled. It is quite unnecessary to get on weight while the stack is building.
Lt.-Col. T. Lloyd, J.P., Thomastown, Ashford.	One.	12 feet by 12 feet; 11 feet deep.	—	—	—	—	—	Stack in the open field, with straw on the top to keep it in a heap.
E. W. O. Donoghue, Esq., J.P., Esq., Ballynagragh.	—	—	—	—	—	—	—	Stacks made with Downer's roller, and in a grass meadow. On wet days I would not make any, and on dry days I lay, so were a long time making it, it was very rotten in wet days.



## LINSTER—continued.

Number of cows kept in silos.	Materials put in silos.	Temperature.		Quantity of silage in the silos in cattle per cow.	To what descriptions of cattle, if in house silos, and how much.	Remarks.
		Greatest Heat.	Average Heat for first 10 days.			
Sept. .	Coarse grass.	Not once taken.		Not known approximately— cows in silos with it and the cattle eat as much of it as they like.	Some cattle— not given to horses.	—
Oct. .	Witches.	Did not try	temperature.	About 4 lbs.	To both horses and cows.	I have never used witches for silage off this year. They make excellent feeding for cattle, and horses like them very much.
—	—	—	—	—	—	Nothing to add to my statement made last year.

## MUNSTER.

1 month off and on, as weather allowed.	Green ensilage and the and wheat.	—	—	Milk cows at 100 at which other cattle in proportion.	Every kind of cattle and horses on the same to horses.	—
Dec. 1st.	Meadow grass.	—	—	Dec. 1st.	Some cattle, and young horses and brood mares, quite satisfactory.	My cattle, horses, &c., as usual, did well on ensilage last winter, and up to date this winter.
Dec. 11th.	Coarse grass.	Do not	know.	—	Refused to eat it, and horses	Both cattle and horses eat it with avidity.
Dec. 11th.	Wheat meadow grass.	—	—	4 cwt. per day — i.e., 3 stone per day to each horse.	To young calving cattle.	The whole is sweet silage.
The number of cows in silos. The largest number is 100.	Grass, some half mowed hay, and a few timothy.	—	—	Cannot say.	Feed 1 year old.	The cattle eat the ensilage with avidity—and the horses as greedily as the cows.
Made at old silos during the winter.	Grass.	I never troubled myself about the temperature.	The more it heats the better the stuff.	As much as they will eat.	Strong cattle— goes better than it with wheat, but had to give it up as the milk and butter were destroyed by it.	Nothing sticks are very easily made, and give little as no trouble to eat during the year. No special treatment necessary beyond a few hours and stews for the top when finished. It is better not to lay out the silage too far as it is eaten. The silage can be worked at all times, and then left to take the silage until convenient to go at it again. Good hay is better than any silage.
I cannot remember any very good, but very bad silage was made in the winter.	Grass, some half mowed hay, and a few timothy.	—	Not known.	As much as the cattle will eat and a day.	Milk cows.	I have a splendid stock of sweet silage with it. I may say, no waste on the top and not a particle in the bottom. The waste is the sides and ends varies from a foot and a half at the top to one foot at the bottom. My milk cattle prefer it to the hay, and I do not doubt the highest rate on the market better, but has any complaint been made from Cork market.
Dec. 11th.	Good meadow grass and wheat rough grass.	—	Not taken.	Not weighed.	Milk cows and horses, and to horses.	I made this stock of ensilage in a yard, growing in the grass cut from the field. I think there could be good quantity of silage in making ensilage made in the field instead of in a yard. I made the ensilage straight up and finished it with hay like a rock.



Name and Residence.	Number of Sins.	Dimensions of Sins—Length, Breadth, Depth.	Materials of Sins.			Whether Drained or not.	Situation.	Has the Sins been made with stone, brick, and lime?
			Walls.	Floor.	Roof.			
CORK COUNTY.								
Andrew Smith, Esq., Mount Airy, Bally- more, County Cork.	Two.	10 feet 8 inches by 8 feet 4 in- ches; 11 feet 8 inches deep.	Concrete.	Concrete.	Slate.	Not.	Half below and above surface.	No.
Lieut.-Col. P. W. Bell, P.O. The Blackrock, Farm, Co. Cork.	One.	40 feet by 16 feet; 21 feet deep.	Stone.	Clay.	Slate.	Not.	Above.	This year in 4 round stacks, about 11 feet in diameter, weighed with straw.
Lieut.-Col. Charles Deane, J.P., Gortanna, Co. Cork.	Two.	50 feet by 16 feet; 12 feet deep. 50 feet by 11 feet, 12 feet deep.	Stone and ce- ment.	Hard earthen.	Timber & slate.	Not.	Above.	Not by me, but I do not see why, if you put straw, it might be so much better.
Mr. Michael Cawston, for the late Dr. Hodges, Glenties, County Cork.	Three.	45 feet by 16 feet; 16 feet deep.	Stone and masonry, cemented inside.	On the floor, along broken stone and wall cemented.	Galvanized iron.	Not.	Foundation 1 foot below surface.	Grass and green, made in the shape of a bar, raised by a windmill.
Mr. Campbell Smith, Esq., Ballybrannigan, County Cork.	Three.	No. 1—18 feet by 16 feet; 12 feet deep. No. 2—16 feet by 16 feet; 12 feet deep.	Ordinary wall, cemented in- side.	Cemented.	Slate.	Not.	Above.	I have never tried it.
A. J. Carver, Esq., Esq., J.P., Ballin- carraig, County Cork.	One.	34 feet by 16 feet; 24 feet deep.	Stone.	Cement.	Corrugated iron.	Not.	Above.	—
O. H. Holmes, Esq., Ballybrannigan, County Cork.	One.	12 feet by 16 feet; 12 feet deep.	Flashed.	Concrete.	Slate.	Not drained.	Partly below surface.	Has been made in stacks for last few years, and weighed with straw.
Lord Villanueva, Esq., Old Bannock, Mal- low.	One.	10 feet 4 inches by 11 feet 8 inches; 4 feet deep.	14-inch rubble masonry, plastered with Portland cement.	Gravel.	Corrugated iron.	Not, but gave a full 10- years' use.	Partly above and partly below.	No.
John A. E. Newman, Esq., J.P., Ballybrannigan, County Cork.	Two.	(1) 20 feet by 16 feet; 12 feet deep. (2) 20 feet by 11 feet, 12 feet deep.	Concrete inside. Do.	Concrete. Do.	Slate. Do.	Not. Do.	Above surface. Do.	No.
Charles Arthur Webb, Esq., Ballybrannigan, County Cork.	Two.	Each about 16 feet by 16 feet; 4 feet deep.	Masonry.	Paved.	Slated.	No.	Above. An un- used out- house having been con- verted into a sin.	Yes; in stacks.
John Costa, Esq., Mallow.	One.	16 feet by 16 feet; 12 feet deep.	Stone and ce- ment.	Concrete.	Slate.	Not.	Above.	—
E. Longford, Esq., Esq., Longford, County Cork.	—	—	—	—	—	—	—	Yes; a stack under large hay barn.
George Palmer, Esq., Cork House, Mal- low.	One.	20 feet by 16 feet; 12 feet deep; ground surface.	Rubble masonry, plastered with cement.	Drained with a serving of concrete floor.	Timber and felt.	Drained.	Partly sunk.	In a sin, covered with plaster and washed with straw, about six inches of water all round.
J. Farnham, Esq., Esq., J.P., Bally- brannigan, County Cork.	—	—	—	—	—	—	—	—
Captain M. J. O'Leary, Esq., J.P., Bally- brannigan, County Cork.	Two.	34 feet by 16 feet; 14 feet deep. Do.	Stone. Do.	Concrete. Do.	Slate. Do.	No. Do.	Upon surface. Do.	Not done—house was used.



## MUNSTER—continued.

Number of days occupied in feeding	Materials put in bins	Temperature		Quantity of ensilage in lbs. given to cattle per day	To what description of cattle is this ensilage fed, and how much	Remarks
		Greatest heat.	Average heat for feed in days			
Twenty days.	Crimson clover and ryegrass leaves, cut as a d o w grass, &c.	140 degrees F.	140 degrees F.	20 lbs.	Milk cows.	It was used instead of cabbage to make up the ration for milk cows; and taking cabbage at 100 per ton, its value was found to be 100 per ton.
From 1 to 2 weeks.	Vetches, grass.	—	—	As much as they could eat.	All sorts of milch and young horses.	Some waste round sides and tops of silo, but quality and odour of rest very good. My sheep do not eat ensilage, although given to them in great quantities. I find the stock ensilage much better than that made in the silo.
Days. No. of loads, etc.	Vetches, crimson clover, and second crop clover after mowing.	Not tested.	Not tested.	Cattle not fed entirely on it.	Stew cattle and sheep.	I find ensilage given with roots and straw do very well for young stock. Ready to use very good of it and prefer it to hay. I have not weighed out in months, as I give it all consumption with other food.
10 days.	—	Could not	could not	To fattening cattle, 10 lbs. in the each meal.	It may be given to all horses to all horses. Our horses will not eat it.	For cutting the grass short—there is a permanent machine power machine attached to a horse, I was required to cut chopped grass, it is removed to the silo, it is spread in a house, it is levelled, and I am to put it in the silo.
Finished in 10 days.	Vetches and crimson clover, old grass.	Not tested.	—	—	Chiefly to dairy cattle before and after milking, 10 lbs. each in two loads. Cattle get half the quantity.	I have seen stock ensilage in silos made with great success, and thought a great deal of the silage, especially showing a well. I consider ryegrass and clover the best for stock, especially so to be used in summer for fattening. I have found vetches and oats give the best cows, but I am trying winter type this year.
—	—	—	—	—	—	I only once made ensilage of clover and grass seeds (ryegrass): it did very well, but I did not use it, and I consider that it did as well as the other. My stomach has left, so cannot give further details.
For 4 days.	Courthouse grass.	Not tested.	—	About 10 lbs.	All kinds of cattle, generally milking cows; none so much.	A most valuable food for cows milking in winter, as by its use most-graining can be much lessened; it is an excellent grass which either was sold would not eat in any form.
Not known.	Grass grown on farm, which is mowed every year.	Not known.	—	—	Young stock and milch cows fit to horses.	Last year ensilage was made in dry weather. It turned out excellent. Farmers changed by silos had 10 pounds of ensilage for 4 inches.
About 10 days.	Weighted with stones.	14 degrees in 1st degree	—	10 lbs.	Stew cattle, two years old.	—
First twice, 1 day each.	Meadow grass.	140 degrees.	100 degrees.	About 10 lbs. per cow, from a stack, 10 lbs. from a silo, in 10 year old silos.	Dairy cows, calves, and sheep. None so much.	A stack, 10 feet long by 10 feet wide, and about 10 feet high, when finished, and weighed 100 lbs. (weight of stones) over. It was a good one, and was in all. Some with September. Finished 10 October. It was in 10 feet long or 10 feet wide, and weighed 100 lbs. with about 10 tons of hay, the hay, 100 lbs. equal to 10 lbs. to some 100 lbs. now made 100 lbs. The second stack, it was made of meadow grass, on 10 October it was ready to be used. The silage (the first) is a pleasant aromatic smell, much related to silage. The silage from the silo was not so good, but it was made by cattle, though I consider the stack silage better in every way.
About 4 or 5 days.	Grass.	—	—	—	—	I have given ensilage this year in the silo in the field (the same as hay). All kinds of stock seem to like it.
About 10 days.	Meadow grass.	140 degrees, F.	—	10 lbs.	Stew cattle and dairy cows. Horses get only a little. It will soon be given to some cattle.	The stack measures 10 feet by 10 feet, and 10 feet high. The system of pressure in the silage is not quite satisfactory. The temperature was allowed to rise too high, and some of the silage was considerably rotted. It is soluble, and some very good. About 10 lbs. of ensilage waste in silage.
1 day—the first put in this day as it was cut.	Upland grass.	—	Eight to ten by weightings.	10 lbs.	Milk cattle.	I have given both in ensilage, and expect to have double the quantity next year as I have this year. I consider ensilage made in a silo preferable to any made in a stack, and the waste is nothing near so much.
—	—	—	—	—	—	—
10 days for the last.	Grass.	Standard when finished, 140 degrees.	4 feet high, 100 degrees, F.	10 lbs. per ton.	Milk cows only, but any cattle will eat it.	There is no difficulty in making silage, the pressure is the most important. I used vetches with grass—10 lbs. of the silage, and did not come out over 10 lbs. The silage was properly made in most interesting and good for dairy cows, my stock, but should be put up dry, not in wet.



## PROVINCE OF

Name and Residence.	Number of Siles.	Dimensions of Siles—Length, Breadth, Depth.	Materials of Siles.			Whether Drained or not.	Situation.	Has Feeding been made within a Sile, and how?
			Walls.	Floor.	Roof.			
<b>COLE COUNTY—continued.</b>								
Arthur Wallis, Esq., Drishane Castle, Balderton.	—	18 feet by 14 feet; 4 feet deep.	—	—	—	—	Above.	Stack, covered by wire netting.
" "	Three.	12 feet by 12 feet; 12 feet deep. 12 feet by 12 feet; 12 feet deep. 12 feet by 12 feet; 12 feet deep.	Stone plastered. Do. Do.	Flint. Do. Do.	Slate. Do. Do.	No. Do. Do.	All above. Do. Do.	No.
Capt. R. E. McBride, J.P., Glenkeogh, Balderton.	—	42 feet by 14 feet; 12 feet deep.	Stone and mortar, covered with lime.	Concrete.	Tile.	No.	Partly below.	No.
W. A. Hark, Esq., J.P., Drishane, Balderton.	One.	24 feet by 12 feet; 14 feet deep.	Stone and mortar, covered with lime and cement and sand.	Concrete.	Slate.	Not drained.	4 feet below.	Yes, in a stack.
Edward Albert, Esq., Challinawry.	—	—	—	—	—	—	—	—
Mr. Wm. Baskin, Land Surveyor to the Irish Rep. Rail of Limerick, Con- ventry, Ballyphar- ney.	—	—	—	—	—	—	—	In stacks, covered with patent slaps reiter, weighted with hay, turned out a double.
G. Mount, Esq., Bal- lincorney, Glenkeogh.	Four.	(1) 12 feet by 12 feet 12 feet deep. (2) 12 feet by 12 feet 12 feet deep. (3) 12 feet by 12 feet 12 feet deep.	Concrete. Do. Do.	Clay. Do. Do.	Slate. Do. Do.	No. Do. Do.	4 feet under. Do. Do.	In the open, 30 feet long by 12 feet broad, 12 feet high.
J. E. Johnson, Esq., Hermingway, Glas- mole.	—	—	—	—	—	—	—	My ewe was made in stack and completing up to 14 feet in height, with Farnham's roller pressure. On the interior, the and was covered off as a sick and thatched.
Colonel R. A. Shal- loway, Esq., Oulsh- lane, Drumahaire.	—	—	—	—	—	—	—	Feeding was made in a stack under a slated hay barn. Grass was cut with weather was too wet for haymaking, put on in large stacks in the barn, and at once piled with Farnham's roller, weighted with sand.







Name and Residence	Number of silos	Dimensions of silo—Length, breadth, Depth.	Materials of silo.			Whether drained or not	Situation.	Has Forage been made without a silo, and how?
			Walls.	Floor.	Roof.			
<b>KERRY COUNTY.</b>								
Mr J. C. R. Colman, R.M.O., M.P., Donaghadee, Keshmarr.	One.	12 feet 4 inches by 8 feet 6 inches; 8 feet deep.	Masonry, external surface is plastered with cement.	Concrete.	Corrugated iron.	No.	Partly below.	No.
Robert O'Shea, Esq., J. P. Loughisheghe B. J. Mahon, Esq., B.L. Glenties, Keshmarr.	One.	10 feet by 12 feet; 12 feet deep.	Masonry plastered on inner face with cement concrete.	Cement concrete.	Timber covered with felt.	Not drained.	Partly by the electric bank which is about 10 feet under level of top of silo.	No.
" "	Two silos.	12 feet by 12 feet; 12 feet deep.	Walls plastered with cement in one and not in the other.	Flagged.	Slated.	Cracks in wall, no other drainage.	Partly below.	—
<b>LEWIS COUNTY.</b>								
E. White, Esq., Fox Ross, Falcarrack.	—	—	—	—	—	—	—	Without silo, 12 feet by 12 feet.
John Doran, Esq., Black Ross, Keshmarr.	—	—	—	—	—	—	—	I have no silo. I make ensilage made in the open on the roller system. I have two stacks—on one and another on a different form; both very good, but with a bottom in the wall. I have made ensilage made like this for the past three years with success.
Major J. S. Phillips, Esq., Ballyvaughan, County Limerick.	One.	40 feet by 20 feet; 12 feet deep.	No walls.	Bottom stone.	Timber.	Not.	Above surface.	I put in the grass under an ordinary open hay barn, and exposed enough in regard to rot.
Mrs. Newport White, Keshmarr, Doneg.	—	12 feet by 12 feet; 12 feet deep.	—	—	—	—	Above.	I made my ensilage in a square stack and in the middle, covering a good dry silo for it.
" "	—	—	—	—	—	—	—	In a stack under hay shed, 12 feet by 20 feet; 8 feet deep, with 7000 lbs. of silage.



## MINSTER—continued

Number of days consumed in filling silos.	Material put in silo.	Temperature.		Quantity of Haylage in lbs. given to cattle per day.	To what description of cattle it is given, and how much.	Remarks.
		Greatest Heat.	Average Heat for first 10 days.			
A few hours, and an interval in still work.	Straw, some-what broken for hay.	Not taken.		15 lbs. (1 lb. twice a day).	Milk cows.	The whole building internal measurement is close in to feet 8 inches by feet 8 inches; the total internal height is from floor to eave of roof, 10 feet 6 inches by partitions, concrete walls well across the middle; only one-half the whole building was finished and used last season, for experiment. I think the whole building in two parts next season.
Four days.	Meadow grass.	Not over 10 deg.	About 14 deg.	About 14 stons.	Dairy cows.	Although more expensive in the way of first outlay, I believe it is cheaper in the long run, for there is less waste and much less labor in consumption with it. Haylage is a very valuable food, if given once daily, and cattle get a little hay also daily. It is most useful to be in a position to make haylage at times when unfavorable weather might cost him the loss of a hay crop.
Generally days.	4 Different kinds, from that grown under trees to the grass and clover; the better material put in, the more valuable silage was coming out.	Did not try temperature.		One feed, about 1 stone.	Cows to fatten, but to dairy cows; also yearlings and older stock.	Silage has been made in a stack, built up feet square, built slowly while the grass was green, was 15 days before it was opened. It was used on outside, made very good winter stock. We had some very good food for all kinds of cattle, but when given in dairy silage it always tastes the milk and better, and the sweetest the silage has been fed taste in milk.
About 10 days, if necessary.	On one farm, sweet potatoes, turnips, &c. On another, sweet potatoes, turnips, &c. On a third, sweet potatoes, turnips, &c. On a fourth, sweet potatoes, turnips, &c.	Forced-ventilated heat. Was noticed when good rain had set in, and the weather was overcast.	Have not weighed it. Suppose about 15 lbs. per bushel. It is heavy when properly made.	All kinds of hardy cattle - especially the best few days - but two from cattle and one from sheep. One's not that I approve of it for horses, although they eat it.	Best for making up dry parts of field - the silage was used. It was used in quick. Weather showed. Three cows were fed it as well as making a dry cow. Continued three days work - made about 15 tons. Weather coming in, and the silage was not opened. Remained work - was open on stack - for two days. I gave out two to three days - and so on till the end. Dried, then with heat - not cold, but drying and making it so. Silage was used on outside, made very good winter stock. We had some very good food for all kinds of cattle, but when given in dairy silage it always tastes the milk and better, and the sweetest the silage has been fed taste in milk.	Best for making up dry parts of field - the silage was used. It was used in quick. Weather showed. Three cows were fed it as well as making a dry cow. Continued three days work - made about 15 tons. Weather coming in, and the silage was not opened. Remained work - was open on stack - for two days. I gave out two to three days - and so on till the end. Dried, then with heat - not cold, but drying and making it so. Silage was used on outside, made very good winter stock. We had some very good food for all kinds of cattle, but when given in dairy silage it always tastes the milk and better, and the sweetest the silage has been fed taste in milk.
10 days.	Ordinary meadow grass, turnips, and rye.	28° F.	30° F.	50 lbs.	Milk cows.	I had haylage made on half the length of the rack when about 10 feet of silage was put in. I had it well with a concrete stone roller, then removed platform of boards to other platform of stack round as before, and so on till completed. The stack which was then covered with strong boards and heavily weighted with stones. I consider what rolling is required in the silage is of a more uniform quality than when pressed by rollers on it, and the great mass of silage is more uniform in weight of the stack when it is completed. The matter is pressed the better. I have found cabbage in turnips, and a wonderfully good state of preservation, and consider it a most valuable silage, rye and turnips, while the weather the former two feed well most all the year.
10 days.	Turnips and meadow grass.	Did not take temperature.		7 lbs. twice a day.	Milk cows.	I had my silage weighed well while making it, and when finished placed about two tons of large stones on it, and then placed about a ton of smaller stones on it. When making I did not get the sides of the stack I find the water on the sides about 8 or 10 inches, but there is no water at the top or bottom of the stack.
About weeks.	Good dry, reclaimed, not principally.	Have found heat.	Did not use a thermometer.	One hay and one silage, about half and half.	Some bullocks, and 2 pigs.	Eaten readily, some of the cattle preferring it to the hay, but they take a few days to get accustomed to it, over a few days most of the cattle will eat it. The silage is very good, and the hay is good and well selected.



## PROVINCE OF

Name and Residence.	Number of Sinks.	Dimensions of Sinks—Length, Breadth, Depth.	Materials of Sinks.			Whether Drained or Not.	Situation.	Has Drainage been Made without a Sink, and how?
			Walls.	Floor.	Roof.			
<b>LIVERMORE COUNTY—continued.</b>								
E. S. Cooke, Esq., J.P., Ballinasloe.	Two or three.	—	—	—	—	—	—	Yes; in stacks in the open field.
Richard E. Lloyd, Esq., 78, Parkview, Oysterbrook.	—	—	—	—	—	—	—	No. 1 and 2 were made with two-inch rubber in concrete layers. No. 3 was not weighted other than with a few stones, but was tapered to within 12 inches of the top. No. 4 was weighted with a lot of earth and soda. No. 5, the outer wall was not sealed. The stones were supported by a mass earth was put up. It was weighted with a lot of earth and soda.
<b>TIPPERARY COUNTY.</b>								
W. T. Trapp, Esq., J.P., Longwood, Monaghan.	Two.	34 feet by 12 feet; 12 feet deep. 22 feet by 12 feet; 12 feet deep.	Masonry, lined with cement. Do.	Clay. Do.	Galvanized iron, raised 8 feet over top of sink. Do.	No. Do.	Partly below. Do.	In stacks, drawing the grass on to it and so on. The masonry being then sloping with planks and weighing with planks and covering with straw or other material to keep out the rain.
William E. Reed, Esq., Derrylane Park, Thurstonstown.	One.	34 feet by 12 feet; 10 feet deep.	Stone, cemented on inside, 3 feet thick.	Concrete.	Slime, 4 slaps.	Not drained.	Partly below.	No.
E. H. Goss, Esq., J.P., Thurstonstown, Monaghan.	One.	22 feet by 14 feet 6 inches; 12 feet 6 inches in depth.	Stone and masonry.	Clay.	Slated.	A large anchored drain pipe below.	Ground surface within about 4 feet of the top of the sink below. Front is entirely above the surface.	Yes, in stacks, weighted with stones over with grass and so on. The stones are 12 inches apart and held up. There was a good deal of waste.
Lord Dunsany, Esq., Rathfriland, Monaghan.	—	—	—	—	—	—	—	Two large stacks; 40 feet by 20 feet; 12 feet when filled.
W. T. Trapp, Esq., J.P., Longwood, Monaghan.	One.	34 feet by 12 feet; 12 feet deep.	Brick masonry, lined with cement.	Clay.	Galvanized iron raised 12 feet over top of sink.	No.	Partly below.	Yes, in stacks, 12 feet by 12 feet; 12 feet when filled.
Edw. M. Armstrong, Esq., J.P., Donaghadee, Waterford.	One.	22 feet by 12 feet; 12 feet deep.	Stone, plastered with cement and sand, 1 in 6.	Concrete.	Galvanized iron.	Not required.	Partly below.	A stack 12 feet high, 12 wide. The stones were stacked down to 12 feet high. The stones laid on the top, and the stones laid on the sides.
Mathew Beckley, Esq., J.P., 17, St. John's Street, Dublin.	—	—	—	—	—	—	—	Yes.
Mr. James W. H. Lord, Esq., 17, St. John's Street, Dublin.	—	22 feet by 12 feet; 12 feet deep.	—	Level ground in open field.	—	—	Above.	—











MUNSTER—continued.

Number of days elapsed in silage	Materials put in silo.	Temperature.		Quantity of ensilage in the given or cubic per acre.	To what description of cattle; if in horses, also at, and how much.	Remarks.
		Greatest Heat.	Average Heat for first 10 days.			
—	Common rough grass.	Not taken.	—	About 34 lbs.	To cows only.	The ensilage turned out very good, only if less air got at it there would have been less waste, about three-fourths sound, the cattle devour it with great relish.
Two days.	Annual ryegrass and also old meadow grass.	—	—	—	Store cattle and horses when the temperature is high.	I gave all the cattle last year, and I have pursued exactly the same course this year, and with perfect success.
Three days.	Meadow grass from lawn.	Temperature not tested.	—	34 lbs. each.	Milk cows.	The grass was forked in, spread evenly, and tramped down with horses walking on it. When filled it was covered with boards, on which were placed concrete blocks to weigh it.
—	Good old meadow grass.	Not taken.	—	—	Two year old heifers and millocks.	I had two stacks of ensilage made, but I had no silo. The stacks were of about following dimensions—No. 1, 14 feet square—This stack was too small, the sides were not sufficiently covered, and the ensilage was not so good. No. 2, 14 feet by 10 feet—This stack was more carefully made, sides well covered, and lay weighted with about 1 ton of timber and stones and ridge. In building these stacks the chief points to be attended to seems to me to be—(1) That the stack shall be built firmly and evenly, so that there shall be no danger of the turning. (2) That the sides shall be very firmly pressed, and (3) The ridge should be raised.
Eight days, with 120 days' rain of two days.	Green oats, peas, and beans (sown together).	130 degrees, F.	118 degrees.	About 7 lbs. each, with other food, so cattle in stacks thrown out to the field to stave cattle.	To all sorts of stock and to cattle remaining in stable; also young horses, who devoured it to heart.	I also made two stacks of clover, five or six tons on the stack while making it being quite as good as a silo. I found butter's system excellent, as the stack can be built twice as rapidly as with the silo. Ensilage was sown in the street in both stacks, cattle eat the hay as well as the ensilage; found also troublesome, and in dairy was not much made in the stacks, and it is easier to raise the proper temperature in stacks than in a silo, and make all ensilage in stacks this year. Found both sour and sweet excellent feeding for cattle and horses.
Second crop.	Good green and meadow.	The temperature was not taken.	—	About 30 lbs.	To store cattle kept over the winter. Not given to horses.	Three stacks of ensilage were made for me last year, one in a barn with three sides rising against walls, and two in the field; one of these and the other two were passed with Duggan's roller in the manner recommended; the silage was washed by rain.
—	—	Not known.	—	Nonconformity.	To every description of cattle, horses, or sheep, about 30 lbs. each of cattle and more or less of sheep.	I made five ensilage stacks, only one about 30 feet long, 10 feet high, and 12 feet wide, all heavily and meadow grass. All turned out fairly well. Each stack was topped up with hay, like a hay stack, about a month after it was finished. Cattle would eat it about 7 or 8 feet, and then left to rot for several days, somewhat lost. When making stacks, should trample the sides well, lay the grass evenly, and keep the centre at least a foot lower than the sides.
—	—	—	—	—	—	I have for three years this a small 200-cwt. load of coarse grass, from a meadow into a square hole in a field. This was well tramped down and weighted in the ratio of about 1 cwt. to the square foot. The result has been most successful—every animal of the sort has been greatly pleased by its richness, and in the year of course (after the addition to one year) that the winter has been remarkable. I attribute the success to the thorough trampling and heavy weighting, which does far all difference in the rough and ready silo. Almost no waste. I have pursued exactly the same method, and with the same encouraging success. We have now so thoroughly proved the advantages of ensilage, when even made in an imperfect way, that we have almost certainly to avoid conversion of this silo system suddenly. I am of opinion that closed silos are decidedly superior to ensilage stacks, the waste in the latter being very great, whereas in the former there is scarcely any waste.
Two.	Old meadow.	Do not know.	—	Store cattle, about 30 lbs.; dairy cows, about 4 lbs. each.	All sorts of cattle and young horses, cows, about 15 lbs. per cwt.	Have used the silo ensilage for some time with perfect success; but this is the first year I have used ensilage stacked in the open, which seems to be perfectly successful also. When about 4 to 5 inches. The stacks were roughly finished with rakes.



Name and Residence.	Number of Sites.	Dimensions of Site—Length, Breadth, Depth.	Materials of Site.			Whether drained or not.	Situation.	Has the Drain been made within a mile, and how?
			Walls.	Floor.	Roof.			
<b>ANTWERP COUNTY.</b>								
Mr. Chas. B. Woodman, forward to the Right Hon. Lord O'Sullivan, Speaker of the House of Commons.	One.	12 feet by 12 feet; 12 feet deep.	No walls, bare poles.	Broken stone.	Corrugated iron.	Not drained.	All above surface.	The drainage has been made outside in a ditch, it being covered by a mat of corrugated iron, and weighted by stones.
Rev. Arthur H. Pakenham, F.R.S., Langford Lodge, Ontario.	—	—	—	—	—	—	Above surface.	Both drains have been made within a mile. No. 1, 5 feet drainage; No. 2, 4 feet drainage.
Edward McNeill, Esq., J.P., Oshkosh, Wis.	Three.	24 feet by 12 feet; 16 feet deep. 24 feet by 12 feet; 12 feet deep. 12 feet by 12 feet; 12 feet deep.	Stone and lime. Do. Do.	Tiles. Do. Do.	Wooden. Do. Do.	Not drained. Drained. Do.	Above surface. Do. Do.	None made outside site.
Wm. E. Baker, Esq., Oshkosh, Wis.	One.	24 feet by 12 feet; 12 feet deep.	Stone and lime connected.	Concrete.	Shed.	Not drained.	Build on a slope, filled in the high side, and taken out on the lower.	No.
Samuel Smith, Esq., Oshkosh, Wis.	One.	24 feet by 8 feet; 14 feet deep.	Stone and lime.	Gravel.	Shed.	—	Above.	No.
John F. Alexander, Esq., J.P., Fort Green, Ont.	Three.	—	—	—	—	—	—	All dry drainage made in inside ditch on ground; 1 on each principle, both 24 feet by 12 feet, 12 feet high; the third on Johnson's principle, and is 12 feet high, 12 feet wide by a ditch 12 feet high.
Capt. R. J. Montgomery, Esq., J.P., Oshkosh, Wis.	One.	24 feet by 12 feet; 10 feet deep.	Stone and lime, plastered with cement.	Stone and lime.	Shed.	Not.	Above.	—
Alfred McNeill, Esq., J.P., Oshkosh, Wis.	One.	24 feet by 8 feet; 12 feet deep.	Stone.	Gravel.	Shed.	No.	On surface.	Two new drains made in inside ditch, made in each parcel with layers, and were open a failure. Minor drains in each parcel, owing to deficient pressure; none of which are possible being open by the side on grass.
" "	One.	24 feet by 12 feet; 12 feet deep.	Brick masonry.	Concrete.	Corrugated iron.	Undrained.	Above surface.	Drains were covered with stone, except with water, and one with heavy apparatus; the last had not been opened when I left home; the others all successful.
William Henderson, Esq., Oshkosh, Wis.	One.	24 feet by 8 feet; 12 feet deep.	Stone and lime, connected in site.	Concrete.	Shed.	Not.	Above.	No.
John Campbell, Esq., Oshkosh, Wis.	Two.	Each is 24 feet by 8 feet; 12 feet deep.	Brick, finished with Portland cement.	Portland cement, concrete.	Wood covered with oak, in divisions like a greenhouse, 20 ft. up to 22 ft. in the top.	Not. The sides of site entrance for 2 ft. 6 in. when we came to the water (4 ft.) when we began to fill site.	All above surface.	This part entrance I put in my drainage into a ditch 12 feet by 12 feet. It is now 12 feet deep.



## ULSTER.

Number of days required in silaging.	Materials put to silage.	Temperatures.		Quantity of ensilage in the silo, given to cattle per day.	To what description of cattle: if to horses state so, and how much.	Remarks.
		Greatest Heat.	Average Heat for last 12 days.			
Stack made at intervals of 4 days.	Meadow grass from plantations and woods.	175 degrees.	160 degrees.	14 lbs.	Cattle, dairy cows, and 11 gals. of milk.	During the time the grass was being mowed to the stack from the field, it was very wet weather, but the foregoing stack of ensilage has yielded out a first class sample. Will be glad to furnish any further particulars regarding same, if desired.
About 10 days.	Infertile grass, chiefly grass under trees.	165 degrees.	140 degrees.	16 lbs. per head per day.	Chiefly stone walls, all ages.	Stack at first did not like it, but now they eat it greedily.
20 days kept, dried at intervals; weighed generally about 100 lbs. per bag.	Upland meadow grass.	No record kept.	As much as they will eat; which runs about half a cwt. per day.	All the cattle, purchased and the young horses, yearlings, 2-year-olds and 3-year-olds, also to breeding cows.	All the stock of every description and the pigs, and never were in better condition.	
About 4 days.	Meadow grass cut in wet weather.	—	—	Do not weigh it; probably a stone each per day.	Stack cattle; never tried horses, as I was told it was injurious to them.	I consider it better this year than last, although filled in damper condition, which I consider was the cause of the improvement. My silo was made a little wet at first, as I had about a foot of it when always raised, and I will try to prevent another season by making it a little drier.
Three.	Meadow grass.	Not ascertained.	—	About 40 lbs. to each cow.	Stack cattle of all kinds.	Pressed with gravel. Very easily put on and when off, silage did not and cattle very fond of it, but for too much waste round walls, from what cause I am at a loss to know.
The roller stuck about 4 weeks and 10 days.	—	145 degrees.	—	About 15 lbs. to 1 year old and 20 lbs. to 2 cows.	Cows.	The roller stuck has turned out well, the last day than the first, which I consider was the cause of the improvement. My silo was made a little wet at first, as I had about a foot of it when always raised, and I will try to prevent another season by making it a little drier.
About 6 days.	Grass.	Not taken.	—	16 lbs.	Hybrid stone cattle.	The ensilage is pressed with Herdolph's patent screw and chafed. It was not of grating state, but would, to a great extent, have been as good as ordinary silage. The silo is a person of part stone driving wall having been built, cutting off one end of stone.
18 days.	Meadow grass.	110 degrees.	10 degrees.	Not weighed.	Milk cows.	The ensilage is horse eaten by cows in preference to hay.
100 and stacks about 4 weeks.	Old meadow and green cuts only.	About 125 degrees.	110 degrees, stack 120 degrees.	About 10 lbs. per head.	Store cattle; mostly sent to horses.	I had stacks and silos both in Antrim and Kildare, and being off and on at both places while they were being made, I cannot say as to the quality of the silage.
10 days from the first was put in the silo; was closed up, but during that time there were some days dry and some days, perhaps, dry for 10 or 12 days.	Extremely silage grass.	I never tried the temperature, in fact, I do not know I could get a thermometer into the grass. It was pressed as tightly together.	—	About 20 to 24 lbs. each; then a little less. Sold for 100 lbs. per ton. If I had made a silo, I would give two.	Milk cows only. As my object is to get as much milk and butter as possible.	Owing to a pressure of other work, I could not get the grass so quickly into the silo as I did last year, and some of it being sent to the silo, the quality of the ensilage is somewhat inferior to last year; but I have been generally disappointed in it, as I quite expected, from above causes, and a rather ordinary small lot had when being weighed up, now and then, it would make out only for two. I intend to put in some vehicle, oats, and grass, and ensilage next year.
Don't say.	Grass from a meadow.	See remarks column.	—	120 lbs. daily to each milking cow.	At present cows.	Previous to this last season I had always made some ensilage by weighing the silo with wooden slabs and bricks to 120 lbs. per square foot. This season I determined to try a new ensilage. I had tried to get about 100 lbs. per square foot, but I was disappointed with the men were filling and loading the grass in the stack, however, I got from 120 to 125. I have at present made a stack and of this to see what it looked like. It is apparently the same ensilage I have made, and I believe will turn out well. It is covered with rough boards and chafed with a sharp knife. This is the first time I have made a stack.



## PROVINCE OF

Name and Residence.	Number of Sites.	Dimensions of Sites—Length, Breadth, Depth.	Materials of Site.			Whether Drained, or not.	Situation.	Has Run-down been made within a Mile, and how?
			Walls.	Floor.	Roof.			
<b>ANTRIM COUNTY.</b>								
Thomas H. Tynan, Esq., 17, Blenheim, Willsborough.	One.	24 feet by 8 feet; 8 inch deep.	Stone and brick with cement floor.	Concrete.	Shed.	Drained.	Above surface.	No.
Robert W. Ireland, Esq., Eireola, Ardaraheen.	—	—	—	—	—	—	—	In two small sites of 12 feet by 12 feet and 20 feet by 16 feet, respectively. The surface site being made level, a temporary aqueduct was put on each corner as a guide, and was broken, care being taken that sites were kept perpendicular and well protected.
Harry J. McCann, Esq., M.T., Donmurry.	One.	24 feet by 12 feet; 1 inch deep when it rained down.	—	—	—	Not drained.	On the surface of the ground.	Within a mile. It was the second crop of grass cut about 20 English acres of town and plantation. Run-down about the end of September.
G. M. Caldwell, Esq., Liscannoy.	—	—	—	—	—	—	—	Yes; have made two drains 20 feet long, 18 inch wide, and 20 feet high when needed.
Mr. James Logan, Esq., 20, Mount St. John, Monkswerry, Esq., J.P., Ballydrain, 2, Liscannoy.	—	—	—	—	—	—	—	Yes.
<b>ARMARH COUNTY.</b>								
Dr. Col. W. J. Alexander, Acton, Portlough.	—	—	—	—	—	—	On the shock yard; (1) in open field; (2) in open field.	On Tynan's side of the shock, also under bay shed, under all open, and in open field, and covered with straw, and sheltered by and not discovered.
<b>CAVAN COUNTY.</b>								
T. H. Marshall Esq., M.T., 17, Strick, Crookstown.	Eight.	(1) 24 feet by 16 feet; 1 inch deep; (2) 24 feet by 16 feet; 1 inch deep; (3) 24 feet by 16 feet; 1 inch deep; (4) 24 feet by 16 feet; 1 inch deep; (5) 24 feet by 16 feet; 1 inch deep; (6) 24 feet by 16 feet; 1 inch deep; (7) 24 feet by 16 feet; 1 inch deep; (8) 24 feet by 16 feet; 1 inch deep.	None.	Surface of ground.	Hay.	Not.	Above surface.	—



## ULSTER—continued

[illegible]







## CLUSTER—continued.

Number of days occupied in silaging	Materials put in silos.	Temperature.		Quantity of silage in the silos in tons per acre.	To what descriptions of cattle, if to be used as silage, and how much.	Remarks.
		Optimal heat.	Average heat for first 10 days.			
On and on about 10 weeks for the inside, 1 week for the outside.	—	About 100 F.	—	Three barrels made out of inside.	Milk cows, steers, and calves, not so much.	The quality of the outside silage is I think better than that of the inside. There was a waste of about 1 foot in depth, but I hope much of this will be avoided this year in building silos, well sinking in. I wish to mention that a neighbor of mine has just opened an inside silo made this year before last, and the contents are in capital condition, and well cured. Told in, I think, well worth note, in my opinion, all ensilages to be better for cattle which grow warm. All inside silos are defective which have got the walls high enough above the top of the ensilage to allow the mass tramping it to be entirely upright, when they have to bend to get when difficult to taking the silage, the tramping is never properly done, and there is much loss of material on the sides.
Commenced silaging July and did not finish till the end of Octo- ber.	Primarily straw, and the produce of Charles's mixed pre- pared grass seed. It is very good.	Did not test the heat.	—	One steam engine as they will not.	Milk cows and young cattle; also a small quantity of silage for cattle.	This is my sixth season's experience. The year 1891 was failure. I had not enough of grain to fill the silos, and when I got into it was lost. It is no good putting in material which, and it is best to put in clean work. The produce of green and better from silos feed is fully equal to hay and June grass.
Do not know.	Grass, &c.	Do not know.	—	Do not know.	Steady.	I did not keep any accounts as number of cows, &c. Made 1150 we had time (say two or three hours in the week at a time).
Made an ap- plication for silage.	Meadow and alderman.	—	—	—	To calves and young cattle, also a small quantity of silage for cattle.	The ensilage was of good quality this year. I found silage pressed with stone comes out better quality than that pressed with less power. Silage pressed with stone partly did on ensilage did not weigh so well as those fed in usual way.
11 days at silos.	All kinds of grass.	Never tested by thermometer.	—	About 8 stone each.	Milk cows and calves.	I only make silage 10 feet by 12 feet; I bring in to afternoon, when I can get out in the forenoon; apply pressure when I find a heating, so that no matter what the heat cannot be in- sured; about 1 foot of waste on sides.
They were fed from July to Oc- tober, and wrapped, but not weighed, and then fed, when the silage was piled on top and bleached out.	Yelches and meadow grass.	—	—	—	—	The silage was very successful, though I think the very wet season was against the manufacturers. I tried a lower of silage with straw.
Turned, ac- cording to silos.	Upland and meadow grass.	I have never tested the heat in my silos.	—	From 100 to 115 lbs. per acre.	Steady and calves.	My horses and cattle eat it just as well as hay or straw—in fact, if served better, and keep up their condition in a superior way from any other feeding; I can give them of course, the same quantity of silage in the silos. My milking cattle get nothing but 100 to 115 lbs. per day, and three buckets of water, and in some feeding I can have more better and better quality than I ever had on root feeding.
Four days.	Grass, me- adow, and grass under trees.	Not ascertained.	—	Not yet com- menced to use silage in the year.	—	—
About ten days each silos.	(1) coarse grass, which would not be waste; (2) alderman grass and straw.	Very warm.	—	at the per cent of silage made out. 10 lbs. per acre to milk cows.	Unweighed silage for cattle and calves.	This is some silage. I find a large quantity given to milk cattle which the milk, but a moderate quantity improves the milk and yield of butter. The first silage filled with grass of brown, yellowish, &c., which would answer for waste, and it is by no means first class silage, but still not a waste.
Two days.	Yelches and meadow grass.	100 degrees.	100 degrees.	No silage made out.	To some cattle, steers and two years old.	The ensilage was good, being between sweet and sour, but there was above the average of waste on top of silos on top, in com- parison with what I have previously made, when more care was taken of building and covering.



Name and Residence.	Number of Silos.	Dimensions of Silo—Length, breadth, depth.	Materials of Silos.			Whether drained or not.	Situation.	How the silage has been made within a silo, and how?
			Walls.	Floor.	Roof.			
DOWN COUNTY—continued.								
Mr. James Wilson, Land Surveyor for Lond. Co., Upper St. Dun. Park, Kesh.	Two.	12 feet by 24 feet; 24 feet deep each.	Stone and lime, and walls cemented.	Concrete.	Slates.	—	Level with surface.	—
Thomas D. O'Connell, Esq., 12, Fort Road, Dublin.	Two.	12 feet by 7 feet; 4 feet deep.	Concrete, six inches, with coat of cement over all.	Concrete with cement over it.	More or less galvanized iron 12 x 6 feet corrugated sheets.	Drained, but found not to be necessary, so not drained.	All below with wood frame three feet above ground level, low weights discovered by roof.	No.
Samuel H. Roake, Esq., 2, Dublin, Grayshay.	—	—	—	—	—	—	—	—
FERRAHAGH COUNTY.								
St. Mary the East of Belmont, D.O., Corkin, Corkin, Corkin.	One.	12 feet by 12 feet; depth of silage, 12 feet 7 inches; saw each 10 x 6 feet 7 inches.	Stone, cemented.	Gravelled.	Slates.	A large main sewer passes under the silo.	—	No.
Mr. H. Archdale, Esq., 12, Castle Road, Dublin.	Two stacks.	12 feet by 12 feet; 12 feet deep; 12 feet by 12 feet; 12 feet deep.	—	—	—	—	Above surface.	Built in the field like a hay-stack, and covered by a frame of wood with canvas cover.
E. M. Archdale, Esq., 12, Castle Road, Dublin.	—	—	—	—	—	—	—	I have made much silage last three years with silage press, and have found it superior to the silage made in the field. The grass comes from an English spot in it, and being on floor of an old gravel bank.
The Earl of Eves, 12, Castle Road, Dublin.	Two.	No. 1—12 feet by 12 feet; 12 feet deep. No. 2—12 feet by 12 feet; 12 feet deep.	Stone and lime. Do.	Concrete. Clay.	Felt. Slates.	Drained. Not drained.	Above ground. Above surface.	One stack, 12 feet long, 12 feet wide, and 12 feet high, covered with stone, and the stack lined with straw. Stack not yet opened, but I expect the result to be fairly satisfactory.
J. Arthur Treacy, Esq., 12, Castle Road, Dublin.	—	12 feet by 12 feet; 12 feet deep.	—	—	—	—	—	Yes; with cut of Messrs. Parsons & Co.'s rollers.
LONDONDERRY COUNTY.								
David Smith, Esq., 12, Castle Road, Dublin.	Two.	—	—	—	—	—	—	Open stacks, covered with stone, 12 feet by 12 feet; 12 feet high, covered with straw. Stack not yet opened, but I expect the result to be fairly satisfactory.
Edward Smith, Esq., 12, Castle Road, Dublin.	Six.	12 feet by 7 feet; 12 feet deep.	Stone and brick, plastered with Portland cement.	Brick, plastered with Portland cement.	Slates.	No.	Above surface.	No.
Michael Egan, Esq., 12, Castle Road, Dublin.	Three.	12 feet by 12 feet; 12 feet deep. 12 feet by 12 feet; 12 feet deep. 12 feet by 12 feet; 12 feet deep.	Stone and lime. Weighted with chains. On each of the sides of a hill, the silage was weighted with stones and hay.	Cement. Slates, and stones placed on columns, and weighted with stones like No. 3.	Slates. Do. Do.	Not. Do. Do.	8 feet below, 2 feet above level. Above surface of ground. 2 feet below and 4 feet above surface.	—



## ULSTER—continued.

Number of days consumed in silage.	Materials put in silo.	Temperature.		Quantity of ensilage in the silo, given to cattle per day.	To what description of cattle, or to horses, swine, &c., and how much.	Remarks.
		Greatest heat.	Average heat for 24 hours.			
Three days.	Old meadow hay.	125 degrees.	180 degrees.	As much as they will eat.	All cattle, sheep, and horses.	I am very much pleased with the ensilage, and consider it a good success, particularly when given to match cows. I have now been using it for three years.
Four silages in all, about four days in all.	Green.	Not taken.		42 lbs.	Almost entirely swine only.	Same as given in last year's report; but estimate being with ensilage all very good—no loss.
—	—	—	—	—	—	I made no share this year, but the reason for hay-making being so wet I got off cutting my hay earlier I saw a favourable change in the weather to ensilage. On account of this delay I had less little ensilage to make silage; but I find a good one by the want of silage this winter. I am arranging my course of cropping this coming year so as to have more grass for silage than I have had any year yet.
44 days.	Infested old meadow grass.	No record taken.		11 lbs. to 2 year olds, 24 lbs. to 3 year olds.	All or nearly all stone stock.	It is reported to be "splendid ensilage." "The cattle would not eat much of it now if I had it for them, and I am sure they would do almost as well as if they got chopped hay and straw." The cattle get hay in addition.
Wet weather.	Green grass.	Not taken.		About 42 lbs.	42 silages of horned cattle.	All cattle that got ensilage said: very good, and they will eat it. Even when a year old prefer it before the best straw hay.
About 6 weeks.	Partly grass, partly good meadow.	Never took temperature.		About 4 silages per cow, in corn; 2 silages in straw.	Milk cows and calves (horses did not eat much).	Milk has always been good, and I have never experienced the slightest taste in milk from giving it to dairy cows. The calves (12 about 12 months old), do better as a rule on any feeding I know. This year I made silage wet weather, and always stopped to work at hay when the weather.
Twelve days.	Mixed grasses.	Not tried to keep the weather, but the best.	Care was taken to keep the weather, but the best.	42 lbs. to full grown cattle.	Horned cattle only.	After three years' experience with ensilage I consider it excellent for all sorts of cattle, especially milk cows. I prefer it to dew weeds, and I find the quality much superior to any sample I have seen which was prepared by mechanical means.
About six weeks.	Not very good grass, clover, and hay.	Did not take temperature.		42 lbs.	Milk cows, calves, and horses.	My silage is very good. There is about 2 inches of waste round the stack and it lies at the top. I think I did not mix enough corn in making it, and the time was too long. The cattle have the strong trunks only.
Three.	One old meadow, one clover, one mixed hay.	Not registered, but satisfactory.		Not kept.	Mostly to young stock.	They will not make silage in wet weather. The soil requires to be set with the top in it and stacked the day of cutting. Some young cattle fed on clover ensilage washed away, and got worse for each whilst others of same age improved all each. The horses did not recover for 12 months. I am of opinion that ensilage will not keep this preserved way, and that good hay will keep in place. There is considerable labour and expense in making.
—	—	—	—	—	—	I had only a very small quantity of ensilage made this year. It was made by the silage in wet weather; the quantity was turned out better than usual.
—	—	—	—	—	—	No. 1 and 2 used last year with success, but the much damaged ensilage round the outside. This silage will be wanted this year by extra weighing when lifting and bedding, and extra weight afterwards on the outside part. The three silages of this year, 1, 2, and 3, are not put opened. No. 1 is weighed with straw packed inside press.
—	—	—	—	—	—	Since the foregoing was written the silos have been opened; the ensilage in No. 1 was good, and I found no loss in it when with brick loaded in weight, and to have the silage on to make it a little wider on the top than at the bottom, which I hope will have the effect of more thoroughly compressing the grass at the sides, where there had been little or some damaged ensilage.



## PROVINCE OF \_\_\_\_\_

Name and Residence.	Number of Sties.	Dimensions of Sties—Length, Breadth, Depth.	Materials of Sties.			Whether Drained or Not.	Situation.	How Drainage has been made without a Stie, and how?
			Walls.	Floor.	Roof.			
<b>LONDONDERRY COUNTY—continued.</b>								
Mr. F. W. Higgins, Derry, D.L., Bellinagh.	Three.	12 feet 8 inches by 14 feet, 8 feet deep. 12 feet 8 inches by 11 feet, 8 feet deep. 12 feet 8 inches by 11 feet, 8 feet deep.	Stone and lime. Do. Do.	Turf. Do. Do.	Slates. Do. Do.	Not. Do. Do.	Above surface. Do. Do.	No. . .
D. H. Lane, Esq., Derry Hill, Farnham, Londonderry.	One.	10 feet by 12 feet, 10 feet deep.	Brick, lined with cement.	Concrete.	No roof; wet all from the top, and washed with straw.	Yes.	Partly above, partly below.	Not this season.
J. E. E. Wier, Esq., J.P., Ross Bush, Londonderry.	—	—	—	—	—	—	—	Four sties also at Londonderry, situated on common, 10 feet.
E. A. O'Leary, Esq., D.L., Polkadee, Londonderry.	—	12 feet by 12 feet, where finished, before washed 12 to 18 feet, which wash to about 4 feet.	—	—	—	—	—	—
" " "	—	—	—	—	—	—	—	Made square and slightly pointed.
Robert Dunn, Esq., Bellinagh.	One.	12 feet by 12 feet, 10 feet deep.	Stone, plastered inside with cement.	Concrete.	Slates.	Drained, full in April, 1882, & a leak.	Above face.	About two years ago in sties, covered with boards and weighted with stones, should cut to square foot.
Major J. Johnson, C.M.G., J.P., Londonderry.	Two side sties, and two stacks.	Side pit No. 1. Filled in three days with slates across. Overgrown with heavy side mud-dew. Side pit No. 2. Filled in three days with slates across. Overgrown with heavy side mud-dew.	Stone. Do.	Clay. Do.	No. Do.	No. Do.	Partly below, partly above. Do.	Yes, two sties. The two side pits were excavated in the side of a hill and uncovered.
Mr. Chas. H. S. S. Evans, J.P., Bellinagh House, Bellinagh.	—	—	—	—	—	Not.	Above.	One stie was made with the Liberator Co. spent One with Farmer's side.
<b>MONAGHAN COUNTY.</b>								
" " "	—	—	—	—	—	—	—	A side stie, pointed with side stone, "Dunlop's" A very heavy pit, and garden wall.







Name and Location.	Number of Silos.	Dimensions of Silos—Length, Breadth, Depth.	Materials of Silo.			Weather Drained, or not.	Situation.	Has Ensilage been made without a Silo, and how?
			Walls.	Floor.	Roof.			
<b>MURTAGHAN COUNTY—continued.</b>								
Wm. F. de V. Kane, Esq., J.P., Newport, Long. Kingsdown, Co. Dublin.	One.	30 feet by 18 feet; 14 feet deep.	Bricks, masonry, cemented internally.	Cement.	Galvanized iron.	Yes.	Partly below.	A stack built for the first time on a large scale. Silos were made on a large scale. A stack built for the first time on a large scale. A stack built for the first time on a large scale.
St. Euseb. Lord Rossmore, D.L., Rossmore.	One.	30 feet by 18 feet; 8 feet deep.	Stone cemented.	Cement.	Wood shiel.	No.	Above.	No.
<b>TYRONE COUNTY.</b>								
Thomas R. Purton, Esq., J.P., Clough Park.	One.	40 feet by 18 feet; 8 inches; 18 feet deep.	Stone with cement lining.	Concrete.	Wood.	No.	Partly below.	In a stack weighted with clay and roofed with straw and rushes.
John R. Sherr, Esq., M.B., Clough Park.	—	30 feet by 18 feet; height 10 feet.	—	—	—	—	—	In a stack. Pressure applied by James's wheel ropes and drums.
Rev. Thomas G. Baker, Anglican, &c.	One.	—	—	—	—	—	—	In a stack. It is 12 ft. by 15 ft. The roof is a turf roof. The silo has been made with Peasants' rollers. There is about one foot water all round, and a notch at the top.
F. Burroughs, Esq., Langmore House, Dungannon.	—	30 feet by 14 feet; 10 feet deep.	Stone and lime, cemented inside.	Concrete.	Felt.	No.	Partly above and partly below.	None made.
Mr. W. Whitehead, Land forward to the Highgate, the Earl of Clarendon, Newtown, May.	—	—	—	—	—	—	—	Yes, by using James's screw and lever press; three pairs of levers and screws.
James Brown, Esq., Dungannon.	—	—	—	—	—	—	—	Yes, in a stack. It is 12 ft. by 14 feet. It is the high, consisting of vehicles and wheels, topped out afterwards with straw and grain.
G. Vandewater, Esq., J.P., Clonmole.	One.	—	—	—	—	No.	On surface.	Both on surface of ground. The silo is a large one of brick, built after it had settled down. It is about a week. It is a risk of hay on top.



## ULSTER—continued.

Number of days occupied in filling silo.	Materials put in silo.	Temperature.		Quantity of ensilage in ton, given in cubic feet per ton.	To what description of cattle; if to horses, state age, and how much.	Remarks.
		Gradient Rank.	Average Heat for first 15 days.			
Cannot say satisfactorily.	Grass of old meadow.	About 10 degrees.	About 100 degrees.	Used for sheep and, ordinary stock, as well as horses.	A feed of silage given at mid-day to some shaggy cattle. They seem to prefer it to hay or straw.	The sheep thrive well on silage. I consider that the loss at the silos at silage stack is nothing in comparison to the deterioration that the silage would have undergone in being stored on hay as that was known. A feed issued by a veterinary man three feet high about the stack, and did not graze for some hours, but it did not show particularly fine quality of the silage.
Six days.	Grass, thistles, mowing, docks, &c. as I put words, &c.	Had no means of trying it.	—	14 lbs. to each pig daily.	Well-fed hogs.	I fancy that after two or three days, to allow of fermentation, it would be advisable to weigh the silo with about 14 or 15 lbs. per square foot. I may say that my opinion of the current opinion that it is a success and extremely easily worked by inexperienced labourers.
—	Grass.	Could not give place.	assumed to be	Could not answer with accuracy.	To all descriptions of cattle and in small and variable quantities to horses.	My stock will probably have a large amount of waste at the silos, from trampling, owing to want of experience in building it. From my experience during the past season, I am disposed to think that the most desirable shape for a silo is square, up to say 12 feet width, and as high as necessary, using a double entrance, or any other suitable mechanism, for entering the green grass.
Unknown—only a few days during which it was used.	Meadow grass and velvet.	Not taken.	—	Various.	Some cattle.	The ensilage is slightly sour. Cattle eat it greedily, favouring all other food when it is present. The waste at silos of stock averages from 4 to 6 inches.
—	Grass.	—	—	—	Milk cows.	When the roller system is used I think the crop ought to be cut very close. It would also be best way to weight it with rods worked down, with grass next the silage, and it is better to dry over fire.
About two weeks.	Meadow grass.	About 10 degrees, Fath.	Cannot tell.	As much as they can eat.	Some and milk cattle.	I think a wet season like last summer better for ensilage than a very dry one, like the summer before. I find my ensilage better this year than last.
Nearly a day.	Lawn and a few grass.	10 degrees.	140 degrees.	Small feed twice—morning and evening.	Dairy cows and some cattle.	Well stock underneath a hay shed. I built stack in the open last year, and would do so again if I could get it under a roof.
Six days in June with weather, and three days in August, September with some and some.	Velvet and some grass.	No record.	—	About 14 lbs.	All classes of cattle except horses.	I have made silage for seven years past, at first in a temporary silo, built of timber, but have now adapted the silage system, as used by Johnson's press, with the advantage of making good sweet silage out of velvet, which I never was able to do in a silo.
Five, with intervals of 7 days and 4 days.	Grass of every description.	Not noted.	—	14 lbs. to 18 lbs.	Milk cows.	I consider ensilage a good substitute for hay, have been feeding without harm or uneasiness since 1884. However, and with a small addition of meal with the mother cattle have kept up quantity of milk, and are in excellent condition.



Name and Residence.	Number of Silos.	Dimensions of Silos—Length, Breadth, Depth.	Materials of Silos.			Whether Drained or not.	Situation.	Has Earthen base made without a silo, and how?
			Walls.	Floor.	Roof.			
<b>GALWAY COUNTY.</b>								
Michael Barry Esq., D.O., Kilmacnevin, Co. Dub.	Two.	34 feet by 30 feet; 11 feet deep. 30 feet by 30 feet; 11 feet deep. 30 feet by 30 feet; 11 feet deep. 30 feet by 15 feet; 14 feet deep. 30 feet by 15 feet 6 inches; 11 feet deep. 30 feet by 15 feet 6 inches; 11 feet deep. 16 feet by 8 feet 6 inches; 8 feet 6 inches deep. 15 feet 6 inches by 7 feet 6 inches; 10 feet deep. 18 feet by 15 feet 15 inches; 10 feet deep. 30 feet by 30 feet; 15 feet deep.	Stone, cemented inside.	Concrete.	Galvanized iron.	Drained.	Partly below.	Yes, in stack.
Ed. O. Villars Esq., 17, South Hill, Woodlawn.	Two.	—	—	—	—	—	Above silo.	Without a silo in second track, only the outside rim of which was tramped during making.
P.O. U. French Esq., Appleton Lodge Ashlawn, Woodlawn.	Three.	—	—	—	—	—	—	Without a silo on sloping bank, worked on with horse and cart out of when finished.
Mr. Henry Graham Refers, Esq., D.O., Mount Belvoir.	Four.	(1) 34 feet by 30 feet. (2) 25 feet by 20 feet. (3) 15 feet by 10 feet. (4) 25 feet by 18 feet; height 4 feet at the sides and 12 or 15 feet at sides when settled.	None.	Any dry portion of soil.	Stitches of earth thrown up from a trench round silo.	Drained by means of trap which earth for roof was raised.	Partly above ground.	I have always made earthen without a silo.
B. W. Wallis Esq., Esq., D.O., May's Park, Ballymore.	—	—	—	—	—	—	—	In stacks.











## CONNAUGHT—continued.

[illegible]



Name and Residence.	Number of Silos.	Dimensions of Silos—Length, Breadth, Depth.	Materials of Silos.			Whether Limited or not.	Situation.	The Feedings have made without a silo, and how?
			Walls.	Floors.	Roofs.			
<b>GALWAY COUNTY</b> <i>continued</i>	—	—	—	—	—	—	—	—
Henry E. T. Ebbels, Esq., <i>St. Mary's.</i>	—	—	—	—	—	—	—	With a silo, stacked on the grass, carried on two wheels by hand, working 2 to 4 days at each stack, sometimes a week without doing anything. Several roller plants, about 2 tons per day.
<b>LEITRIM COUNTY.</b>	—	—	—	—	—	—	—	—
Lord Enniskillen, Esq., <i>Downpatrick, Down.</i>	—	—	—	—	—	—	—	The silos are built on the grass, built on a bed of hay 12 to 18 feet deep, was filled with potatoes from 179, 184, and 185, and covered with straw, and with James's roller, 184 and 185, in wet this covered with dry straw and spread hay for protection only.
G. O. E. White, Esq., <i>St. Patrick's Church, Carrick-on-Shannon.</i>	—	—	—	—	—	—	—	Yes, with James's roller. One stack 18 feet by 12 feet, 30 feet high, and covered with straw, and covered from rain.
G. Henson, Esq., <i>St. Patrick's, Downpatrick.</i>	Two.	—	—	—	—	—	—	In stack, weighted with stones.
Richard Todd, Esq., <i>St. Patrick's, Carrick-on-Shannon.</i>	—	—	—	—	—	—	—	Yes, stacked the grass above ground, and had each layer rolled with James's roller, and covered with straw, and covered from rain.
Thomas O'Connell, Esq., <i>St. Patrick's, Carrick-on-Shannon.</i>	—	—	—	—	—	—	—	The grass was rolled on the snow, and built in one manner as if it was hay, covered with straw, and covered from rain, and covered with straw, and covered from rain.
James Johnston, Esq., <i>St. Patrick's, Carrick-on-Shannon.</i>	One.	45 feet by 18 feet; 12 feet 6 inches deep.	Slates and mortar.	Flats.	Slates.	Not.	Above the grass.	No.



## CONNAUGHT—continued.

Number of days required in silaging silo.	Materials put in silo.	Temperature.		Quantity of ensilage in silo, given in Cows per diem.	To what description of cattle, if in horses stable or, and how much.	Remarks.
		Greatest Heat.	Average Heat for first 10 days.			
—	—	—	—	—	—	<p>swine, a head weighing 120 lbs. will, in addition to the allowance of say 1 lb. of oats, do, and about 20 lbs. of silage, and similar beasts will not physiologically lose. In the erection of silage stacks on my system no special labour is needed. A fork, led, by which I pull in at midday, put up all my stacks, and I found the cost of ensilaging and throwing up the soil to cover a stack, of 40 feet diameter was only 4s. An economy can be effected in the transport of the grass by placing the stack near the middle of the meadow, so that a portion of the grass can be carried from the ends to the stack by means of the American horse rake. A stack of 40 feet diameter usually occupied about six weeks to erect and drain, and two or three stacks were in process at the same time. This plan of silage will be found the most advantageous in the future, because it is the cheapest, it requires the least labour, the work is done in the best time, and the grass crop is saved when convenient.</p>
—	Grass of every description, half ripe oats, weeds and green.	No record.	—	Have not weighed it.	Withers, stumps, and my working horses, mares, and foals; cannot tell quantity given.	<p>I started two stacks on different farms, worked irregularly, sometimes left them for more than a week without any weighing or measuring whatever, topped with dry hay and finished with rushes; will not run for top milk, but will leave much fat in milk, as an upper part was very dark, almost black, good small, but not light colour, very good; will not dry and makes on top milk very. Withers will not do on silage alone, but does feed on field with great success; no loss on milk. About one foot waste on sides, weather too dry and windy I believe.</p>
10 days in silaging and ensilage.	—	Not ascertained.	—	From 40 lbs. to 45 lbs., with about 7 lbs. of hay and 7 lbs. of roots.	Cows, store heifers, store calves, and mares; only a small proportion to horses, though they are very fond of it.	<p>The silage made this year was very superior to that of 1847. In 1847 the silage was less from rain, whereas in 1848 it was very dry; this may have acted beneficially on the temperature; besides, the silage which may have been somewhat damaged in the silo. After ensilaging it fell down 10 feet to 12 feet. There was not near so much waste (in fact very little) as the silo as top as in 1847.</p>
About 4 days sometimes very half a day's silaging.	Good meadow grass, young reeds, young grass, and young "mangel-worm" is related to reeds, grown in bottom of the canal, green vetches, rape, and thistles.	140 degrees.	140 degrees.	To calves, 10 lbs.; to two-year-olds—all ordinary cattle.	To half-bred Friesian cows out of Kerry cows. Mares as given out about 10 lbs. two-year-olds and calves, all lbs.	<p>All the crops turned out good ensilage except the "mangel-worm" which is black, watery, and has no nutriment at all. The rest is very sweet-smelling, and makes short colour, and much thickened by the cattle and horses. Once they are used to it they prefer it to the best hay. I shall (D.V.) make a larger stack next season. I cannot account for the large waste this season unless it was from rain, or too green and juicy when put in and the cooling of layers to very much more than I ever noticed before. A great deal of it had run from stack for this week after it was drained, and the waste this year was about on an average 12 inches.</p>
About 4 days.	Green.	Not taken.	—	—	Cattle.	—
Two days, with a little.	Ordinary meadow grass.	Did not take the temperature.	—	About 40 lbs.	To milk cows.	<p>I have made ensilage for the past few years in different ways, but I consider the foregoing the best. I did not find that it affected the quantity of the cows' milk, but they frequented very much in condition. I gave them some hay a night.</p>
Three or four days, according to weather.	Old meadow grass.	So hot the heat could not bear it, but the register had not time.	—	As much as cattle would eat, but not weighed.	Two year old heifers, fed in stacks.	<p>In my opinion ensilage is most valuable, not only as a general fodder, but more especially in a season when it is difficult to save hay, as it can be made in wet weather. I also believe cattle of all kinds do so well, if not better, than if fed altogether on hay.</p>
11 days.	Old meadow.	Temperature.	—	About 500 lbs. a head.	Store cattle. None to horses.	<p>The grass was put much better into the silo than this year, and consequently there was far less waste on the top, and also than it has been in previous years. A large quantity of grass was made available for food, which would not have been saved as hay, owing to the wet season and being surrounded by trees.</p>



Name and Residence.	Number of Silos.	Dimensions of Silos—Length, Breadth, Depth.	Materials of Silos.			Whether Drained or not.	Situation.	Has the Silo been made within a year, and how?
			Walls.	Floor.	Roof.			
<b>LEITCH COUNTY</b>								
St. George E. Johnston, Esq., J.P., Mount Pleasant, Buchanan.	Four.	(1) 30 feet by 10 feet, 20 feet deep. (2) 40 feet by 10 feet, 14 feet deep. (3) 40 feet by 10 feet, 10 feet deep. (4) 18 feet by 10 feet, 10 feet deep.	Stone, plastered, finished on-sewn. Stone, plastered concrete. In open. Open stack.	Concrete. Do. Concrete. —	Iron. State. Hay stack. —	Transverse concrete. — — —	(1) Enclosed into hill, is fast so as to sit down back by throwing down loads. (2) Enclosed into hill, as so to fasten, and drawing is given. (3) Enclosed into hill, as so to fasten, and drawing is given. (4) Enclosed into hill, as so to fasten, and drawing is given.	Yes. Has 8-in. road-way in side of the hill by side of stack, and the loads and thrown down and raised without by the loaded cart to go on stack, and then horse and cart loaded pass in, and throw all loads.
Col. R. C. Clement, Esq., 17, Leitch Arms, Dundee.	One and one-half.	10 feet by 10 feet, 11 feet deep.	Stone and concrete.	Parrot.	State.	Not drained.	Above surface.	Yes. In a side of hill, by 10 feet wide, 10 feet high, which is now down to 4 feet high. Fenced by having a horse walking over it, while being put in, after which it was covered with a number of stones, and with a pile of hay was built.
W. H. White, Esq., 17, George Street, Aberdeen.	—	—	—	—	—	—	—	—
<b>MAYS COUNTY.</b>								
G. R. Miller, Esq., J.P., 11, Market, Ballycastle.	One.	10 feet by 8 feet, 8 feet deep.	Concrete.	Rock.	Thatch.	No.	Below.	In roundish iron structure, 10 feet high, with a small door at round, 10 feet deep, and with a horse on top over arch. Overlaid with a horse wheel at round. Height of stack when opened, 4 feet.
R. Yeary, Farmer, Esq., 17, Berrill Street, Wexford.	One.	10 feet by 10 feet, 10 feet deep.	Concrete.	Concrete.	Corrugated iron.	No.	Below ground, but above stone.	Yes. In round stack, 17 feet by 10 feet, covered with plank and weighted with stones, hay being thrown over and used brought to a point, and thence, made as a ordinary hay pile.
S. F. Jones, Esq., Ballypore.	Four.	14 feet by 8 feet, 8 feet deep each.	Concrete.	Concrete.	Iron.	Drained, this silo for the first time and had in an improved state.	Six feet under and three feet above ground.	Yes.
<b>ROSCOMMON COUNTY.</b>								
The Right Hon. the (Hon.) Rev. B.L. Graham B.L. Knighton, Co. Dublin.	Two.	—	Concrete. Brick masonry.	Concrete. Clay.	Galvanized sheet. Do.	Yes. Do.	Above. Do.	—
<b>SLIGO COUNTY.</b>								
Mr R. W. Owen-Booth, Esq., 11, Lisanel.	Two.	10 feet by 10 feet, 10 feet deep.	Masonry, plastered with concrete.	Concrete.	Corrugated iron, covered with ship's hatch.	Drained.	Partly below.	Not this season.



## CONNAUGHT—continued.

Number of days occupied in silaging.	Materials put in Silo.	Temperature.		Quantity of Forage in Silo, given to Cattle per day.	To what description of Cattle; if to horses state sex, and how much.	Remarks.
		Greatest Heat.	Average Heat for first 15 days.			
Four weeks, at intervals of one, two, or three days.	Natural grass-dew grass.	Not tested.	—	First, one feed evening, one day, then all evening for months; and last, one feed day.	Cattle and sheep.	I have made half-acre of grass, at noon, into evening, and I think it feeds more staid and better than some hay under hay alone. As to you are quite certain to make good fodder, irrespective of whether so long as you can stand out to work, and while the grass is quite wet. Ruminants seem quite as good, if not better, than made in dry weather. On this farm all the stock are housed the whole winter. All my stocks are weighed with 250 lb. scale, 10 to 20 lbs. per head.
4 days, with 4 days intervening between each day the silo was filled.	Grass.	Not tested.	—	40 lbs. to feed grown cattle.	Milk cows, calves, and calves.	The ensilage made in rich has less waste at the sides (not more than 4 inches deep) and given at the top than any made in the house; and the ensilage of fully as good a quality, if not better, than any in silo. The grass is said to be, I should say, slightly weighed with silage, 10 to 20 lbs. per head.
—	—	—	—	—	—	I made my stock of ensilage in the simplest manner in the middle of the field in which it was cut. It was simply mowed into a long as possible as it was cut, and as soon as it was cut up, some hay of wood was put on top of it and after a few days when it had sunk (put about 10 lbs. of earth on the top). It has proved out very well. I expect to feed 2 head of cattle up to about 2 months. There was about 1 inch waste on the sides. I expect with the experience I have had this year, to do better next.
About 15 days.	Rough grass from glacial hills.	—	—	—	Cows, stall-feds, calves, & sheep.	Silo not yet opened.
4 days.	Clover, mixed crop, meadow and ry.	—	—	10 lbs. to a full-grown beast.	Horns, calves, and cows.	After three years experience of six stacks, I don't intend to make one again (unless compelled to do so by bad weather). The waste is too great. Air-drying is worth the cost of making—whether of wood, stone, or earth. Roofing can be dispensed with by making a pile on top of the stage stack.
—	Green rye and oats, clovered.	32 degrees.	28 degrees.	Chaffed through 14 to 18 lbs. per day, with chaffed hay and sugar and pulped turnips.	All kinds of cattle—calves, small cows, calves, and horses.	These stacks, 10 feet by 12 feet by 12 feet high, were made up more as building hay stacks, putting on only some 4 feet each time, then let it get up to a good heat, say 150 degrees, and sink down, say 100 degrees, then put on another layer, and so on, leaving the three stacks all going at the same time. The growing stacks had no weight or pressure put on them, and it grew being very much chaffed, but of a dark color, almost black, but the cattle eat it with great relish; but for the future I should prefer weighting the stacks; the stacks are made in a hay barn.
—	—	—	—	—	—	I have not got information to hand for filling up the details of this system. I give the information in 1880, and last year I had the same silo—5 in. in height. In 1887 I used a stack of ensilage without a silo, but did not expect the experiment last year, as I found great waste in the stack. A considerable portion of the ensilage was very good, but a great deal was lost.
10 days.	Old meadow grass.	32 degrees.	28 degrees.	From 10 lbs. to 20 lbs.	Milk cows, stall-fed calves, and yearling calves.	—



## THE WEATHER.

Abstract of Meteorological Observations registered at the Ordnance Survey Office (Height above the Sea 162·2 Feet) Phoenix Park, Dublin, during the year 1888:—

The barometer stood highest in 1888, on the 13th January, at 9 P.M., the air being calm, when it was 30·684 inches; it was lowest at 9 A.M. on 28th March, when it was 28·588 inches. The highest temperature of the air during the year was 73·2 degrees of Fahrenheit on 26th June, and the lowest 18·2 degrees on 10th February. The greatest quantity of rain which fell in a day (24 hours) was 1·190 inches on 11th March, with wind N.E. The point from which the wind chiefly prevailed was the W.; it blew from that direction on 111 days, at 9·0 A.M., with an average pressure of 4·87 lbs. per square foot. The strongest wind was from the S., on the 25th November, when the pressure was 6·00 lbs. per square foot.

1888	BAROMETER.						THERMOMETER.											
	Corrected for Altitude and reduced to 32° F.						Self-registering Thermometers.						Hygrometer.					
	Mean.						Mean.						5 P.M. Mean.					
	At A.M.	At P.M.	Mean.	Range.	Highest in Month.	Lowest in Month.	Highest in Month.	Lowest in Month.	Range.	Of all Highest.	Of all Lowest.	Wet.	Range.	Dry Bulb.	Wet Bulb.	Dew Point.	Ratio Force of Vapor.	Monthly.
January.	29·55	29·18	29·36	0·56	29·84	28·74	29·00	28·77	0·23	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
February.	29·18	28·78	28·98	0·40	29·38	28·58	28·98	28·77	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
March.	28·94	28·54	28·74	0·40	29·14	28·34	28·94	28·73	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
April.	29·20	28·80	29·00	0·40	29·40	28·60	29·00	28·79	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
May.	29·46	29·06	29·26	0·40	29·66	28·86	29·26	29·05	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
June.	29·72	29·32	29·52	0·40	29·92	29·12	29·52	29·31	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
July.	29·98	29·58	29·78	0·40	30·18	29·38	29·78	29·57	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
August.	29·74	29·34	29·54	0·40	29·94	29·14	29·54	29·33	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
September.	29·50	29·10	29·30	0·40	29·70	28·90	29·30	29·09	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
October.	29·26	28·86	29·06	0·40	29·46	28·66	29·06	28·85	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
November.	29·02	28·62	28·82	0·40	29·22	28·42	28·82	28·61	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
December.	28·78	28·38	28·58	0·40	28·98	28·18	28·58	28·37	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
Total.	29·12	28·72	28·92	0·40	29·32	28·52	28·92	28·71	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2
Mean.	29·12	28·72	28·92	0·40	29·32	28·52	28·92	28·71	0·21	29·2	28·2	28·2	0·12	28·7	28·1	28·7	28·2	28·2

  

1888	RAIN.		WIND.		WIND.											
	Number of Days Rain or Snow fell.		Total Amount in Inches.		Number of Days it blew in certain directions at 5 P.M. and the total pressure in lbs. per Square Foot.											
	Total.		Mean.		N.											
	At A.M.	At P.M.	At A.M.	At P.M.	N.	North-east.	E.	East-south-east.	S.	South-west.	W.	West-north-west.	N.W.	North.	Pressure.	Mean.
January.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
February.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
March.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
April.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
May.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
June.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
July.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
August.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
September.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
October.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
November.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
December.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
Total.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12
Mean.	18	18	1·19	1·19	7	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12	0·12

The following particulars have, by the kind permission of the Editor of the Dublin Journal of Medical Science, been derived from Returns of Meteorological Observations taken in Dublin City during the years 1868-88, by J. W. Moore, Esq., M.D., F.R.C.S.P., F.R.M.S., &c.; and published in that Journal during the years 1888-89.—

The mean Atmospheric Pressure has been obtained from daily readings of the barometer at 9 A.M. and 9 P.M., corrected and reduced to 32° Fahrenheit at the mean sea level. The mean Temperature values have been deduced from the maximal and minimal readings of the thermometer in the shade by Kaemtz's Formula, viz.,  $\text{min.} + (\text{max.} - \text{min.} \times 41) = \text{Mean Temperature}$ . The Rainfall is that measured daily at 9 A.M. A rainy day is one on which at least one-hundredth (0·1) of an inch of rain falls within the twenty-four hours from 9 A.M. to 9 A.M.

The mean Height of the Barometer during the year 1888 was 29·939 inches. The highest observed reading was 30·684 inches at 9 A.M. on January 13th. The lowest observed reading was 28·588 inches at 1 P.M. on March 28th. The extreme range of atmospheric pressure was 2·136 inches compared with 2·148 inches in 1887.

The mean Temperature of the year, deduced from the maximal and minimal readings of the thermometer in the shade by Kaemtz's Formula was 47·6°. The highest reading was 73·2° on



June 20th; the lowest reading was 24.8° on February 14th. The average mean temperature for the years 1868-87, calculated in the same way, was 45.7°. The mean temperature deduced from the daily readings of the dry bulb thermometer at 9 A.M. and 9 P.M. was 43.3°.

As regards the Direction of the Wind, 732 observations were made during the year with this result: N. 51, N.E. 91, E. 82, S.E. 51, S. 88, S.W. 90, W. 169, N.W. 86, calm 44.

For observations with reference to the Rainfall, see pages 141, 142.

Appended are some remarks upon the different months of the year 1888.

**JANUARY.**—During the greater part of the month the weather was open, although changeable in Ireland, colder in England, and very cold in France and Germany. The type of distribution of atmospheric pressure was chiefly anticyclonic in the south, cyclonic in the far north and north-west. A remarkably persistent anticyclone prevailed in Western Europe from the 7th to the 21st. This system first moved slowly northwards from Spain to the south of Scandinavia, and then changed its course, travelling southwards again. In front of it very warm westerly winds were found, but as it encroached upon the United Kingdom the air became still, temperatures fell, and dense fogs formed. During the first few days heavy easterly gales were experienced in Ireland as a time when intense frost held on the Continent. These gales scarcely extended even as far westward as England.

In Dublin the mean temperature (42.1°) was perceptibly above the average (41.4°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 41.5°. In the twenty-three years ending with 1867, January was coldest in 1861 (M. T. = 38.8°) and warmest in 1875 (M. T. = 46.0°). In 1867, the M. T. was 35.7°, and in 1868 it was 37.5°. In 1871 and in 1886, the M. T. was 37.9°; in the year 1879 (the cold year) it was 33.3°. As a general rule, January in Dublin is not colder, but rather a shade warmer, than December. This is owing to the full development in January of a winter area of low pressure over the Atlantic to the north-westward of the British Isles and to a resulting prevalence of S. W. winds in their vicinity. January, 1888, proved no exception to this rule.

The mean height of the barometer was 30.192 inches, or as much as 0.811 inch above the average value for January—namely, 29.381 inches. The mercury rose to 30.686 inches at 9 a.m. of the 13th, and fell to 29.183 inches at 9 a.m. of the 2nd. The observed range of atmospheric pressure was, therefore, as much as 1.503 inches—that is, a little over one inch and one-half. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 41.5°, or 2.0° above the value for December, 1887; that calculated by Kämtz's formulae—viz.,  $\text{mean} + (\text{max.} - \text{min.}) \times .41 = \text{Mean Temp.}$ —from the means of the daily maxima and minima was 41.3°, or 0.5° above the average mean temperature for January, calculated in the same way, in the twenty years, 1865-84, inclusive (40.8°). The arithmetical mean of the maximal and minimal readings was 42.1°, compared with a twenty years' average of 41.4°. On the 9th the thermometer in the screen rose to 58.8°—wind W.S.W.; on the 29th the temperature fell to 25.9°—wind W. The minimum on the grass was 19.4° on the same date. The rainfall was only 1.247 inches, distributed over nine days. The average rainfall for January in the twenty years, 1865-84, inclusive, was 2.243 inches, and the average number of rainy days was 17.1. The rainfall and the rainy days, therefore, were both greatly above the average. In 1877 the rainfall in January was very large—4.332 inches on 25 days; in 1889 also 4.258 inches fell—on, however, only 18 days. On the other hand, in 1876, only .406 of an inch was measured on but nine days; and in 1890, the rainfall was only .563 of an inch on but eight days. In January, 1886, 3.244 inches of rain were measured on as many as 26 days, and in 1887 1.616 inches fell on 16 days.

A solar halo was seen on the 1st, and lunar halos appeared on the 22nd, 23rd, and 24th. The atmosphere was foggy on the 9th, 10th, 11th, 12th, 13th, 14th, 19th, 20th, 23rd, and 29th. High winds were noted on 13 days, reaching the force of a gale on four days—the 3rd, 4th, 25th, and 31st. Hail fell on the 1st and 19th, and snow or sleet on the 1st, 30th, and 31st. Temperature exceeded 50° in the screen on 10 days, compared with seven days in December, 1887; while it fell to or below 32° in the screen on only three days, compared with seven days in December. The minima on the grass were 32°, or less, on 17 nights, compared with 26 nights in December.

The first week of the new year (ending Saturday, January 7th) witnessed the substitution of warm, damp, squally weather, for the cold, dull conditions which held during the latter part of December. Sunday was very cold, and at night hail, snow, sleet and rain fell abundantly. On Tuesday and Wednesday a strong, southerly gale blew on the Irish coast, accompanied with a heavy rainfall. The last three days were mild and fine. The mean dry bulb temperature was 43.4°, or 3° above the average—the extremes were: highest, 52.5° on Saturday; lowest, 33.6° on Sunday. The mean height of the barometer was 29.633 inches, pressure ranging from 29.183 inches at 9 a.m. of Monday, to 30.254 inches at 9 p.m. of Saturday. Rain fell on three days to the amount of .890 inch, the maximal fall in 24 hours being .356 inch on Tuesday.

Throughout the second week (8th-14th) conditions were anticyclonic over nearly the entire of Western Europe. Consequently, quiet, foggy, dull weather prevailed. The fog, which accompanied the anticyclone, was probably unpropitious for its extent, intensity, and persistence. Before it formed on Monday evening a warm S. W. current of air raised the shade temperature to 59° at Mullaghmore, County Sligo, and in Dublin, while from the north-east of England a value as high as 63° was reported. With the onset of the fog the diurnal range of temperature became very small. Monday was in Dublin bright and warm as September. On Tuesday the sun shone dimly through the fog, but after that day the sky was almost constantly covered with a dense cloud-canopy. The darkness on Friday was phenomenal at times. In Dublin the mean height of the barometer was 30.599 inches, and the range of pressure was only .266 inch—from 30.430 inches at 9 a.m. of Sunday to 30.696 inches at 9 a.m. of Friday. The mean dry bulb temperature was 42.8°—extremes being highest, 58.8° on Monday; lowest, 36.5° on Thursday. Rain fell on Sunday to the amount of only .910 inch.

During the week ending Saturday, the 21st, dull, cold weather prevailed until Friday, when a considerable rise of temperature occurred as a westerly current displaced the easterly winds which had previously been blowing. At first the air was very searching, but afterwards it was soft and ex-



cessively damp. On Tuesday forenoon and Wednesday afternoon the sun shone brightly. Light showers of hail fell on Thursday, and towards evening a warm rain fell in showers. There was a considerable rainfall ( $\approx 102$  inch) on Friday night also, subsequently to the clearing of a dense, damp fog, which had hung over the city on that day. In Dublin the mean pressure was 30.420 inches, the barometer ranging from 30.588 inches at 9 p.m. of Wednesday, to 29.930 inches at 9 p.m. of Saturday. The mean dry bulb temperature was  $40.3^{\circ}$ —highest being  $53.0^{\circ}$  on Saturday; lowest,  $32.7^{\circ}$  on Thursday. Rain fell on two days to the amount of .172 inch—the heaviest fall being .102 inch on Friday.

In the fourth week (22nd–28th) the weather was at first mild and chiefly fine, but afterwards became cold, clear, and dry, and on Saturday a sharp frost occurred—the thermometer falling to  $20.0^{\circ}$  on the grass, and to  $37.4^{\circ}$  in the screen. Atmospheric pressure was again much above the average—the mean being 30.218 inches; the highest, 30.464 inches at 11 p.m. of Thursday; the lowest, 29.806 inches at 11.30 p.m. of Wednesday, when a strong westerly gale prevailed. The mean dry bulb temperature was  $42.4^{\circ}$ , or  $2^{\circ}$  above the average. The highest reading of the thermometer was  $53.0^{\circ}$  degrees on Wednesday; the lowest was  $27.4^{\circ}$  at Saturday. There were light showers on three days, but the only measurable rainfall was .028 inch on Wednesday. Some smoke fog, and haze were noticed on Saturday, on the evening of which day a total eclipse of the moon (magnitude, 1.442 lunar diameters) was seen under most favourable circumstances.

Sunday, the 29th, was the coldest day in the month—the thermometer falling to  $25.3^{\circ}$  in the screen, and to  $19.4^{\circ}$  on the grass, and rising in the daytime only to  $37.4^{\circ}$ . Slight snow and sleet or cold rain fell on the last two days—a severe northerly gale occurring on the 31st, when a well-marked depression travelled southwards across the whole of Great Britain.

At Greystones, Co. Wicklow, the rainfall in January amounted to 3.36 inches, distributed over only eight days. Of this quantity .67 inch was measured on the 1st, 1.66 inches on the 3rd, and .62 inch on the 4th—that is, no less than 3.95 inches on three days.

FEBRUARY.—Notwithstanding a spell of mild weather, which lasted from the 3rd to the 10th, February 1888 proved to be a very cold and snowy month. Even in Dublin snow or hail fell on as many as fourteen days, and the mean temperature was no less than  $4.6^{\circ}$  below the average, and  $3.5^{\circ}$  below that of the preceding month of January. The rainfall fell far short of the average, and consisted chiefly of melted snow and hail. The amount of cloud was very great—namely, 73.1 per cent. It is remarkable that during the mild, fine weather of the earlier part of the month the wind was generally north-westerly, an area of high atmospheric pressure lying off the S.W. of Ireland.

In Dublin the mean temperature ( $38.6^{\circ}$ ) was much below the average ( $43.2^{\circ}$ ); the mean dry bulb readings at 9 a.m. and 9 p.m. were  $38.0^{\circ}$ . In the twenty-three years ending with 1887, February was coldest in 1873 (M. T. =  $37.9^{\circ}$ ) and warmest in 1869 (M. T. =  $46.7^{\circ}$ ). In 1888, the M. T. was  $39.7^{\circ}$ ; in the year 1879 (the cold year) it was  $40.1^{\circ}$ . As a general rule, February in Dublin is only a shade colder than March. This is owing to the continued development in February of a winter area of low pressure over the Atlantic to the north-westward of the British Isles and to a resulting prevalence of S.W. winds in their vicinity, while the Continental anticyclone embraces the British Isles and Scandinavia in March, causing easterly winds and low temperatures. In 1888, however, the Continental anticyclone spread westwards across Scandinavia and the Norwegian Sea in the middle of February; hence the great cold of the latter half of the month.

The mean height of the barometer was 30.118 inches, or no less than 0.257 inch above the average value for February—namely, 29.861 inches. The mercury rose to 30.568 inches at 9 a.m. of the 26th, and fell to 29.461 inches at 9 p.m. of the 11th. The observed range of atmospheric pressure was, therefore, 1.107 inches—that is, a little over one inch and one-tenth. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was  $38.0^{\circ}$ , or  $3.5^{\circ}$  below the value for January, 1888; that calculated by Kæmstra's formula—viz.  $\text{mean} + (\text{max.} - \text{min.} \times .41) = \text{Mean Temp.}$ —from the means of the daily maxima and minima was  $37.0^{\circ}$ , or  $4.6^{\circ}$  below the average mean temperature for February, calculated in the same way, in the twenty years, 1865–84, inclusive ( $42.6^{\circ}$ ). The arithmetical mean of the maximal and minimal readings was  $38.6^{\circ}$ , compared with a twenty years' average of  $43.2^{\circ}$ . On the 3rd the thermometer in the screen rose to  $51.4^{\circ}$ —wind W.S.W.; on the 14th the temperature fell to  $24.6^{\circ}$ —wind W.N.W. The minimum on the grass was  $16.4^{\circ}$  on the same date. The rainfall was only 1.097 inches, distributed over 14 days. The average rainfall for February in the twenty years, 1865–84, inclusive, was 2.244 inches, and the average number of rainy days was 17.6. The rainfall and the rainy days, therefore, were both very much below the average, although not to the same extent as in 1887, when only .341 inch of rain fell on 11 days. In 1883 the rainfall in February was large—3.752 inches on 17 days; in 1859 also 3.706 inches fell on 23 days. On the other hand, in 1873, only .935 of an inch was measured on but 8 days. The rainfall in 1887 was much the smallest recorded in February for very many years. Snow or sleet fell on the 2nd, 11th, 12th, 14th, 15th, 19th, 26th, 27th, 28th, and 29th. Hail fell on the 1st, 10th, 19th, 20th, 21st, 22nd, 24th, 25th and 29th. The atmosphere was foggy on the 15th and 16th. High winds were noted on 11 days, reaching the force of a gale on only one day, the 2nd. The temperature exceeded  $50^{\circ}$  in the screen on only 4 days, compared with 16 days in January; while it fell to or below  $32^{\circ}$  in the screen on 12 days, compared with only 3 in January. The minima on the grass were  $32^{\circ}$  or less on 22 nights, compared with 17 nights in January. On 13 days the thermometer did not rise to  $40^{\circ}$  in the screen.

In the period ending Saturday, the 4th, the barometer was, after the 1st, high over Germany and France, low and unsteady over Scandinavia, where the dominant systems of atmospheric pressure were cyclonic.



On the 1st, the depression, mentioned in last month's abstract as having travelled across Great Britain in a southerly direction on January 31, was filling up quickly over France. At night a keen frost occurred in England, the thermometer falling to 16° at Cambridge and to 10° at Hillington and Gildesdon. On the 2nd snow and sleet fell in Ireland, off the S.W. coast of which country an area of high pressure became established.

This anticyclonic system continued to lie over the Atlantic off the S.W. of Ireland until Friday, the 10th; so that throughout this period the wind was northwesterly in the British Islands—more westerly in the North, more northerly in the South. The weather, although cloudy, was fine and mild—the singularly warm N.W. current being a remarkable feature of the period. After Tuesday, the 7th, the barometer fell gradually, and by Saturday, the 11th, pressure had become low, while cold showers were prevalent with a much reduced temperature. Snow and hail fell generally on Friday and Saturday. In Dublin the mean pressure was 30.076 inches, the barometer falling from 30.382 inches at 9 a.m. and 9 p.m. of Monday to 29.461 inches at 9 p.m. of Saturday. The mean dry bulb temperature was 43.2°. On Sunday, the 8th, the thermometer rose to 50.8°, and on Saturday, the 11th, it fell to 31.3°. Rain fell on three days (including hail on one day and snow on one day)—the total measurement being .040 inch, of which .015 inch was registered on Friday and an equal quantity on Saturday.

The week ending Saturday, the 18th, was the coldest experienced in the present winter. The mean dry bulb temperature was 33.0°, or only one degree above freezing point. Temperature was highest (43.5°) on Friday, the 17th, lowest (24.3°) on Tuesday, the 14th, when the minimum sank to 18.4° on the grass. The mean temperature was 10.2° below that of the previous week, and 9° below the average for the time of year. Until Friday the thermometer never rose to 40° in the screen. The mean height of the barometer was 30.033 inches—the lowest pressure was 29.503 inches about 3 p.m. of Sunday, the highest was 30.395 inches at 9 a.m. of Thursday. A little snow fell on Sunday night and early on Tuesday and Wednesday. The only measurable precipitation was, however, .032 inch of rain on Saturday. The planet Mercury was clearly seen to W. by S. at 6.20 p.m. of Saturday, the 18th. The wind varied between W. and N., except on Monday, when it "boxed the compass" as a snowstorm depression passed eastwards south of Dublin. On the 16th the thermometer fell to 1° at Lough, in Sutherland, 4° at Braemar, and 8° at Brooksborough, Co. Fermanagh. On this day snow lay to the depth of 30 inches at Oxford.

The very wintry spell of weather which set in on Friday, February 10, persisted throughout the week ending Saturday, 23d. It is true that the minimal readings of the thermometer were not nearly so low in Dublin as they had been in the previous week—nevertheless, the weather was even more severe, for strong N.E. winds, piercing cold, and frequent heavy falls of snow and hail took the place of the dry and frosty weather of the preceding week. The barometer was high in the extreme north, low in the south (that is, over France, the Mediterranean, and Spain). Hence the strong E. and N.E. winds of the period. In Dublin the mean atmospheric pressure was 30.062 inches; highest, 30.231 inches at 9 a.m. of Friday; lowest, 29.802 inches at 9 a.m. of Sunday. The mean dry bulb temperature was 35.8°. Temperature was highest on Tuesday (41.0°), lowest on Sunday (31.3°). The rainfall amounted to .796 inch on six days. Of this quantity .473 inch was measured on Saturday. The precipitation was almost entirely in the form of snow and hail.

During the last four days fresh to strong northeasterly to easterly winds prevailed, accompanied by dull, bleak weather, and on the Dublin coast frequent showers of hail and snow. In the S.E. of England temperature was very low at this time, and dry snow fell at times.

At Greystones, Co. Wicklow, the rainfall in February was only 0.43 of an inch, distributed over 8 days. The maximal fall in 24 hours was 0.12 inch on the 21st.

**MARCH.**—The month was very cold, except for a brief period from the 6th to the 10th inclusive, and also on the 21st and 22nd. The precipitation, which was very large, was chiefly in the form of snow, or sleet, and hail; and the winds, which were high and squally, came principally from polar points of the compass.

The cold was intense in Northern Europe (Russia, Finland, and Scandinavia) throughout the month, whereas it became much less intense than it had been in February in Central and Southern Europe. Indeed, during the last ten days there was a general thaw in France, Germany, and Austria.

In Dublin the mean temperature (39.8°) was decidedly below the average (43.5°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 38.9°. In the twenty-three years ending with 1887, March was coldest in 1867 and 1883 (M.T.—39.0°) and warmest in 1868 (M.T.—47.3°). In 1876, the M.T. was 41.1°; in the year 1878 (the cold year) it was 42.8°. As a general rule, February in Dublin is only a shade colder than March. This is due to the fact that the Continental anticyclone embraces the British Isles and Scandinavia in March, causing easterly winds. In the present year, February was only 1.2° colder than March, and the temperature even in January was actually 2.3° above that of the past month.

The mean height of the barometer was 29.646 inches, or as much as 0.277 inch below the average value for March—namely, 29.923 inches. The mercury rose to 30.461 inches at 9 a.m. of the 21st, and fell to 29.556 inches at 1 p.m. of the 23d. The observed range of atmospheric pressure was, therefore, as much as 1.925 inches—that is, a little less than two inches. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 38.9°, or 0.9° above the value for February, 1888; that calculated by Kaemke's formula—viz.,  $\text{min.} + (\text{max.} - \text{min.} \times .41)$ —Mean Temp. from the means of the daily maxima and minima was also 38.9°, or 3.8° below the average mean temperature for March, calculated in the same way, in the twenty years, 1868–87, inclusive (42.7°). The arithmetical mean of the maximal and minimal readings was 39.6°, compared with a twenty years' average of 43.5°. On the 8th the thermometer



in the screen rose to 58°—wind S.W.; on the 17th the temperature fell to 30°—wind N.W. The minimum on the grass was 21° on the 5th. The rainfall was 3758 inches, distributed over 18 days. The average rainfall for March in the twenty years, 1863–84, inclusive, was 2.081 inches, and the average number of rainy days was 16.5. The rainfall and the rainy days, therefore, were decidedly above the average. In 1867 the rainfall in March was very large—4.072 inches on 22 days; in 1866 also 3.629 inches fell on 21 days. On the other hand, in 1871, only .815 of an inch was measured on 12 days, and in 1874 only .963 inch fell, also on 12 days. In 1887, 1.485 inches of rain fell on 15 days.

Solar halos appeared on the 19th and 27th. The atmosphere was foggy on the 14th, 24th, and 28th. High winds were noted on 11 days, reaching the force of a gale on 5 days, the 7th, 8th, 9th, 12th, and the 28th. Snow or sleet occurred on the 11th, 12th, 13th, 15th, 16th, 18th, 19th, 25th, 26th, 27th, and 28th—ten days in all; and hail fell on the 1st, 12th, 13th, 15th, 16th, 18th, 24th, 25th, 26th, 27th, and 28th.

In the period ending Saturday, the 3rd, the barometer was high over Scotland and Ireland, low over Scandinavia and the Peninsula. The weather was, in consequence, cold, with Polar winds between N.E. and N.W.

In the course of the week ending Saturday, the 10th, the weather underwent a complete change in the British Islands, and indeed throughout the greater part of Western Europe. The piercing easterly winds of February gave place to warm, humid S.W. winds, which blew strongly after Tuesday and were accompanied by considerable falls of rain on Thursday and Friday. The increase of temperature extended to Central Europe, but severe frost held in Northern Russia and throughout Scandinavia. In Dublin, the mean height of the barometer was 29.681 inches; highest, 30.091 inches at 7 p.m. of Tuesday; lowest, 28.594 inches at 3.40 p.m. of Friday. The mean dry bulb temperature was 44.6°. The shade thermometer rose to 58.6° on Thursday, having fallen to 30.7° on Monday. Rain fell in measurable quantity on three days to the total amount of .941 inch, the maximal fall in 24 hours being .650 inch on Saturday, or rather in the early morning hours of Sunday, the 11th.

Very inclement weather prevailed throughout the week ending Saturday the 17th, owing to the advance eastwards across the British Islands of a series of deep atmospheric depressions between two areas of high pressure, of which one lay over Scandinavia and the other over the Iberian Peninsula. Intense cold held in Northern Europe, but in France and the southern portion of the United Kingdom temperature was occasionally high. In Dublin, the mean dry bulb temperature was 30.5°, or 8.1° below that of the previous week. The absolute maximum, 48.7°, really occurred at 9 p.m. of Saturday, the 10th, and subsequently the thermometer did not rise above 42.4°. The minimum in the screen was 20.9° on Saturday, the 17th, when the minimum on the grass was 22.0°. The barometer ranged between 28.836 inches at 9 a.m. of Sunday, and 30.214 inches at 9 p.m. of Saturday—the mean pressure being 29.454 inches. The precipitation, which was chiefly in the form of snow or sleet and hail, amounted to 1.930 inches on five days. On Sunday the rainfall measured 1.012 inches, and on Tuesday .600 inch fell. Snow lay deep upon the Dublin mountains from Sunday afternoon.

The beginning and the end of the third week (18th to 24th inclusive) were cold, with a singularly keen and nipping air. A short-lived mild spell set in on Wednesday afternoon and lasted till Thursday evening. During the first three days the barometer was high in the North and Northwest, so that E. to N.E. winds prevailed, with occasional showers of hail and snow. On Wednesday pressure gave way in the North, and S.W. winds with warm sunshine were experienced, followed by clouds and soft rain. From Thursday both pressure and temperature were low, and the wind was light and variable, chiefly from polar points of the compass. In Dublin, the mean height of the barometer was 30.021 inches—the extremes being—highest, 30.481 inches at 9 a.m. of Wednesday; lowest, 29.680 inches at 9 p.m. of Saturday. The mean dry bulb temperature was 37.7°. The thermometers in the screen rose to 33.1° on Thursday and fell to 29.7° on Saturday. The minima in the screen were below 32° on five nights. The rainfall amounted to .300 inch, distributed over four days. Of the total quantity, .100 inch was measured on Wednesday. Snow or hail fell on the first two days of the period, and large hail late on Saturday night.

The record of the last week (25th to 31st inclusive) is again one of wintry weather, but towards the close of the period signs were not wanting of a coming change to milder and more spring-like conditions. Until Saturday, the 31st, atmospheric pressure was unusually low over the British Islands, a series of deep depressions culminating on Wednesday, the 28th, in a cyclone, near the centre of which the barometer receded to 28.33 inches at Scilly. This system subsequently filled up by degrees as it travelled slowly in an easterly direction towards the North Sea and the Continent. On the first three days of the week showers of snow, hail, and soft hail (grape) fell at intervals. On Wednesday, the 25th, a fresh easterly gale prevailed, with heavy rain, hail, and wet snow. Two rather dull damp days followed, but the last day of the month proved fine and bright. In Dublin, the mean pressure was only 29.185 inches—highest, 30.033 inches at 9 p.m. of Saturday; lowest, 28.556 inches at 1 p.m. of Wednesday. The mean dry bulb temperature was 37.6°—max., 48.6° on Thursday; min., 27.6° on Monday. The rainfall measured .682 inch on six days. Of this quantity .320 inch was registered on Wednesday. A solar halo appeared on Tuesday.

In Dublin, the temperature fell to or below 32° on eleven days in the screen, and on twenty-six days on the grass. The mean minimal temperature on the grass was 25.7°, compared with 29.4° in February and 31.1° in January. In Dublin, the rainfall for the first quarter of 1888 amounted to 6.697 inches on 41 days, compared with 3.642 inches on 42 days in the corresponding quarter of 1887.

At Greystones, Co. Wicklow, the rainfall in March, 1888, amounted to 3.45 inches, distributed over 14 days. Of this quantity .92 inch was measured on the 16th, 1.18 inches on the 11th, and .28 inch on the 27th—that is, no less than 2.38 inches on three days.



APRIL.—A generally cold, cloudy, changeable, showery month, with average atmospheric pressure, and a preponderance of winds from polar points of the compass. In Dublin rain fell on as many as seventeen days, but the total amount was only about two inches. With the exception of 1879 and 1887, this was the coldest April experienced in Dublin since the present records were commenced in 1860.

In Dublin the mean temperature ( $45^{\circ}$ ) was decidedly below the average ( $47^{\circ}$ ); the mean dry bulb readings at 9 a.m. and 9 p.m. were  $45^{\circ}$ . In the twenty-three years ending with 1887, April was coldest in 1879 (the cold year) (M. T. =  $44^{\circ}$ ), and warmest in 1865 and 1874 (M. T. =  $50^{\circ}$ ). In 1886, the M. T. was  $46^{\circ}$  and in 1887 it was as low as  $45^{\circ}$ .

The mean height of the barometer was 29.929 inches, or 0.063 inch above the average value for April—namely, 29.867 inches. The mercury rose to 30.350 inches at 9 a.m. of the 6th, and at 9 a.m. of the 26th, and fell to 29.157 inches at 9 p.m. of the 30th. The observed range of atmospheric pressure was, therefore, 1.193 inches—that is, a little less than one inch and a quarter. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was  $45^{\circ}$ , or  $6^{\circ}$  above the value for March, 1888; that calculated by Kämtz's formula—viz.,  $\text{min.} + (\text{max.} - \text{min.} \times .41) = \text{Mean Temp.}$ —from the means of the daily maxima and minima was  $44^{\circ}$ , or  $2^{\circ}$  below the average mean temperature for April, calculated in the same way, in the twenty years, 1865–84, inclusive ( $47^{\circ}$ ). The arithmetical mean of the maximal and minimal readings was  $45^{\circ}$ , compared with a twenty-three years' (1865–1887) inclusive average of  $47^{\circ}$ . On the 14th the thermometer in the screen rose to  $60^{\circ}$ —wind S.; on the 9th the temperature fell to  $28^{\circ}$ —wind N.W. The minimum on the grass was  $29^{\circ}$  on the same date. The rainfall was 1.993 inches, distributed over 17 days. The average rainfall for April in the twenty-three years, 1865–87, inclusive, was 2.034 inches, and the average number of rainy days was 14.8. The rainfall, therefore, was perceptibly below the average, while the rainy days exceeded it. In 1877 the rainfall in April was very large—4.707 inches on 21 days; in 1882 also 3.526 inches fell on 20 days. On the other hand, in 1873, only .496 of an inch was measured on 8 days, and in 1870 only .438 inch fell, also on 8 days.

Solar fairs were seen on the 9th, 28th, and 29th. The atmosphere was more or less foggy on the 8th and 6th. High winds were noted on no fewer than 16 days, but on only one occasion was the force of a gale attained—namely, on the 30th. Snow or sleet occurred on the 4th and 8th; and hail fell on the 3rd, 4th, 18th, 19th, and 22nd.

During the week ending Saturday, the 7th, the promise of finer weather observed towards the close of the previous month was in part fulfilled, for although the mean temperature was again much below the average for the time of year, the cold winds moderated and some warm sunbathing was enjoyed, particularly at the beginning and end of the week. An anticyclone, or area of high atmospheric pressure, prevailed off the West of Ireland, while several depressions of no great depth travelled southwards down the east coast of Great Britain, producing cold showers at intervals. In Dublin cold rain, sleet, and hail fell on Wednesday, the 4th. The mean atmospheric pressure for the week was 30.128 inches, or as much as 0.954 inch above that for the previous week. The barometer fell to 29.845 inches at 9 a.m. of Wednesday, and rose to 30.350 inches at 9 p.m. of Friday. The mean dry bulb temperature was  $40^{\circ}$ —maximum,  $51^{\circ}$  on Monday; minimum,  $32^{\circ}$  on Sunday. Rain fell on 4 days to the amount of .252 inch, the heaviest rainfall in twenty-four hours being .189 inch on Tuesday.

A very decided change in the weather occurred early in the second week (8th to 14th inclusive)—low temperature and biting winds gave way to spring-like warmth and soft, damp Atlantic or equatorial winds, with genial rains. Sunday, the 8th, indeed, was very cold—the day was shrouded in with a fall of cold rain and sleet and closed with a sharp frost. A solar halo, which developed in a thin film of cirro-stratus cloud on Monday forenoon, was the harbinger of a warm air current, which persisted throughout the remainder of the period—the warmth culminating on Saturday, when the thermometer rose to  $60^{\circ}$  in the screen. This was the first occasion in the present season upon which the temperature exceeded  $60^{\circ}$  in the shade. In Dublin the mean height of the barometer was 29.971 inches—the extremes being, highest, 30.184 inches, at 3 a.m. of Tuesday; lowest, 29.744 inches, at 9 p.m. on Thursday. The mean dry bulb temperature was  $46^{\circ}$ , or  $6^{\circ}$  above that of the previous week ( $40^{\circ}$ ). The thermometer rose to  $60^{\circ}$  on Saturday, having fallen to  $28^{\circ}$  on Monday. Rain fell in measurable amount on four days—the total precipitation being .487 inch, and the maximal fall in 24 hours being .294 inch on Wednesday. The prevailing directions of the wind were N.W. and W.

In the third week (15th to 21st inclusive) the weather was at first fine and springlike, but from Tuesday it was very unsettled and showery or rainy. The type of atmospheric pressure was throughout cyclonic in the British Islands. Until Thursday morning the area of lowest barometer was found permanently off the north-west of Ireland, so that the prevailing winds were S. to S.W. and W. During Thursday and Friday the low pressure system travelled slowly south-eastwards across Great Britain, and in consequence the wind drew into N. and N.E. in Ireland, with a decided fall of temperature, much cloud, rain, and gloom. On Wednesday and Thursday sharp thunder and hailstorms occurred in many parts of the United Kingdom. In Dublin the mean dry bulb temperature was  $47^{\circ}$ ; the thermometer rose to  $58^{\circ}$  on Monday and fell to  $38^{\circ}$  on Saturday. The mean height of the barometer was 29.646 inches—the lowest pressure observed being 29.416 inches at 9 a.m. of Wednesday, and the highest being 29.867 inches at 9 a.m. of Saturday. The prevailing winds were at first S.W. and afterwards N.W. to N.E. Rains fell on five days to the amount of .670 inch; the maximal fall in 24 hours was .224 inch on Wednesday. Hail fell on Wednesday and Thursday.

In the fourth week (22nd to 28th inclusive) keen north-easterly winds, low temperature, and cloudy but dry weather prevailed until Friday, when a mild westerly current spread over the country,



and some soft rain fell. Saturday was very mild and fine—the S.W. current being fully established. In the east and south-east of England, rain fell heavily during the prevalence of the N.E. winds, but in Ireland the weather was dry for the most part. In Dublin the barometer was low both at the beginning (29.795 inches) and close (29.747 inches) of the week; but at 9 a.m. of Thursday it rose as high as 30.050 inches. The mean atmospheric pressure was 30.039 inches. The mean dry bulb temperature, deduced from daily observations at 9 a.m. and 9 p.m., was 45.5°. The thermometer in the screen rose to 55.4° on Saturday, having fallen to 39.1 on Thursday. Rain fell on two days to the amount of .131 inch. Of this quantity, .060 inch was measured on Friday, and .071 inch on Saturday. A little hail fell early on Sunday morning. A perihelion was seen at 5.30 p.m. on Saturday.

The last two days were changeable, and the month closed with a fresh southerly gale, and heavy rain, as a deep V-shaped depression advanced over the British Islands from the south-westward.

In Dublin, the temperature fell to or below 32° on only one day in the screen, but on eleven days on the grass. The mean minimal temperature on the grass was 34.6°, compared with 28.7° in March, 29.4° in February, 31.1° in January. In April, 1887, the mean minimal temperature on the grass was 31.6°.

The rainfall in Dublin during the four months ending April 30th has amounted to 8.090 inches on 55 days, compared with 5.607 inches on 52 days during the same period in 1887, and a twenty-three years' average of 8.488 inches, on 60.2 days.

At Greystones, Co. Wicklow, the rainfall in April, 1888, was 1.40 inches, distributed over only 9 days. Of this quantity, .61 inch fell on the 30th, .30 inch on the 17th, and .24 inch on the 3rd. Since January 1, 8.39 inches of rain have fallen at Greystones, on, however, only 39 days.

**MAY.**—Very stormy, rough, and unsettled both at the beginning and at the end, May, 1888, was nevertheless, a bright, dry, pleasant month. The rainfall was scanty, and in an anticyclonic period lasting from the 20th to the 28th, the sky was for the most part cloudless. As in May, 1887, there was a preponderance of polar winds (N.W. to N.E. and E.). The gales of the 1st, 2nd, 3rd, 30th and 31st were very severe for the season. Thunder was heard on the 2nd, and hail fell on that and the following day.

In Dublin the mean temperature (52.5°) was slightly above the average (51.9°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 52.4°. In the twenty-three years ending with 1887, May was coldest in 1869 (M. T. = 48.5°), in 1853 (M. T. = 48.7°), and in 1879 (the cold year) (M. T. = 48.8°). It was warmest in 1868 (the "warm year") (M. T. = 55.8°) and 1875 (M. T. = 54.9°). In 1886 the M. T. was 50.5°, and in 1887 it was 51.5°.

The mean height of the barometer was exactly 30.000 inches, or .0004 inch above the average value for May—namely 29.996 inches. The mercury rose to 30.519 inches at 9 a.m. of the 11th and 25th, and fell to 28.930 inches at 8 a.m. of the 1st. The observed range of atmospheric pressure was, therefore, as much as 1.589 inches—that is, a little more than one inch and a half. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 52.4°, or 7.2° above the value for April, 1888; that calculated by Kew's formula—viz.,  $\text{mean} + (\text{max.} - \text{min.}) \times .41$  = Mean Temp.—from the means of the daily maxima and minima was 51.2°, or 0.3° above the average mean temperature for May, calculated in the same way, in the twenty years, 1868–84, inclusive (50.9°). The arithmetical mean of the maximal and minimal readings was 52.5°, compared with a twenty-three years' average of 51.9°. On the 7th the thermometer in the screen rose to 68.7°—wind W. S. W.; on the 4th the temperature fell to 36.9°—wind N.W. The minimum on the grass was 28.1° on the latter date. The rainfall was only .978 of an inch, distributed over 11 days. The average rainfall for May in the twenty-three years, 1865–87, inclusive, was 2.072 inches, and the average number of rainy days was 15.5. The rainfall and the rainy days, therefore, were decidedly below the average. In 1886 the rainfall in May was very large—5.472 inches on 21 days; in 1869 also 5.414 inches fell on 19 days. On the other hand, in 1871, only .378 of an inch was measured on nine days; in 1876 only .798 of an inch fell on six days; and in 1857 only .382 of an inch fell on 10 days.

There was a solar halo on the 15th. The atmosphere was foggy on the 10th, 11th, and early morning of the 27th. High winds were noted on eight days, attaining the force of a gale on the 1st, 2nd, 3rd, 30th, and 31st. Hail occurred on the 2nd and 3rd. The only heavy falls of rain were on the 9th (.233 inch), in connection with an anticyclone, and on the 20th (.251 inch), in connection with a deep depression and gale.

During the week ending Saturday, the 5th, the weather was chiefly rough, cold, and showery—a series of deep depressions in the North-west and North causing fresh or strong gales at first from S., and afterwards from W. or N.W. Many years have passed since May was ushered in by such stormy weather as prevailed on the present occasion—the wind reaching the force of a gale on each of the first three days of the month. Hail fell in heavy showers on Wednesday and Thursday, the 2nd and 3rd, and thunder occurred at 1 p.m. of the former day. In Dublin the mean height of the barometer was 29.706 inches—the extremes being—highest, 30.246 inches, at 9 p.m. of Friday; lowest, 28.930 inches, at 8 a.m. of Tuesday. The mean dry bulb temperature at 9 a.m. and 9 p.m. was 47.5°. On Saturday the thermometer in the screen rose to 57.9°, having fallen to 36.9 on the previous day, when a minimal reading of 28.1° was recorded on the grass. Rain fell in appreciable quantity on five days (including hail on two days), the total measurement being 7.46 inch, of which, however .343 inch fell on Monday, April 30th, and .110 inch on Sunday, April 29th.

In the second week (from the 6th to the 12th inclusive) the weather was favourable, except on Wednesday, which was a dull, cold, and ultimately wet day. At the beginning of the period, moderate westerly winds prevailed, with a good deal of cloud and high temperature. On Tuesday evening the wind drew into N., and the thermometer gave way. On Wednesday the clouds came from



S.W., while a cold easterly breeze caused a considerable rainfall (233 inch in Dublin). Next morning the clouds dispersed, and the remainder of the week was fair and quiet—cool easterly sea breezes by day being followed by calm and low temperatures by night. In Dublin the mean height of the barometer, was 30.350 inches—the highest reading being 30.519 inches at 9 a.m. of Friday; the lowest, 29.144 inches, at 9 p.m. of Monday. The mean dry bulb temperature at 9 a.m. and 9 p.m. was 51.9°. On Monday the shade thermometer rose to 68.7°—the maximum for the month—while it fell to 38.8° on Friday. There were frosts on the grass on the last two mornings. The rainfall for the week was 233 inch, recorded on Wednesday, the 9th.

At the beginning of the third week (18th–19th inclusive) conditions were anticyclonic and the weather was fine and dry. On Monday, the 14th, the barometer gave way quickly, and the wind backed to S.W. and S. from N.W., with showers and squalls and very unsteady temperature. On Friday, the 18th, the isobars ran nearly due N. and S. across Western Europe, and very warm weather was experienced except at the sea coast stations—the thermometer rose to 75° in the shade in London. On the previous day it had reached 82° degrees at Berlin and Belfort, and 79° at Wiesbaden and Biarritz. In Dublin the mean dry bulb temperature, deduced from observations taken daily at 9 a.m. and 9 p.m., was 51.5°. The highest reading of the thermometer was 65.8° on Saturday, the lowest was 39.2° on Monday. The mean atmospheric pressure was 29.432 inches. At 9 a.m. of Sunday the barometer was as high as 30.320 inches; at 9 p.m. of Wednesday it fell to 29.182 inches. Rain fell in appreciable amount on four days—the total precipitation being 151 inch, of which 0.66 inch was measured on Wednesday, the 16th.

Settled, brilliant weather characterized the week ending Saturday, the 26th, in Ireland, where conditions were for the most part anticyclonic. On Sunday an irregular atmospheric depression, which had caused severe thunderstorms in parts of Great Britain—especially in the S.W. of Scotland—on the previous day, was dispersing off the N. of Scotland, and a high pressure system was advancing northwards over the United Kingdom from France. This system subsequently took up a fixed position in the N. and N.W., and in consequence the wind became north-easterly. In Ireland it blew with little force, and a cloudless sky prevailed day after day. In Great Britain the wind was stronger, and clouds shut out the sun's rays, so that temperature was often low. In Dublin the mean height of the barometer was 30.333 inches, pressure increasing from 30.034 inches at 9 a.m. of Sunday to 30.519 inches at 9 a.m. of Wednesday, and afterwards decreasing to a minimum for the week of 29.984 inches at 9 p.m. of Saturday. The mean dry bulb temperature, deduced from observations taken daily at 9 a.m. and 9 p.m., was 57.1°, an advance of 5.6° degrees upon the corresponding temperature of the previous week. The thermometer rose to 66.3° in the screen on Sunday, and fell to 45.3° on Saturday. No rain fell in Dublin during the period. At the Ordnance Survey Office, Phoenix Park, no less than 95.6 hours of bright sunshine were registered this week, or a daily average of 13.7 hours.

On Sunday, the 27th, the anticyclone in the N. and N.W. completely dispersed, and conditions became less settled. On Monday night a sharp frost took place in Scotland, the shade thermometer falling to 29° at Wick and to 30° at Nairn. Next day a large and deep impression came in over the N.W. of Ireland from the Atlantic, causing strong S. to W. gales and a heavy and general rainfall throughout the Kingdom. At Donaghadee 1.84 inches of rain fell in the 24 hours ending 8 a.m. of Wednesday, the 30th. In Dublin the last three days of the month were rough, cold, and unsettled.

During the month the thermometer in the screen did not fall below 50.9° (on the 4th), but on seven nights temperature of 32° or less were recorded on the grass. The mean minimal temperature on the grass was 37.9°, compared with 34.6° in April, 28.7° in March, 29.4° in February, and 31.1° in January. In May, 1887, ground frosts were observed also on seven nights, and the mean minimal temperature on the grass was 37.9°.

The rainfall in Dublin during the five months ending May 31st has amounted to 9.088 inches on 69 days, compared with 6.488 on 62 days during the same period in 1887, and a twenty-three years' average of 10.560 inches, on 51.7 days.

At Greystones, County Wicklow, the rainfall in May, 1888, was 2.14 inches, distributed over only nine days. Of this quantity, 1.03 inches fell on the 29th, .34 inch on the 1st, and .27 inch on the 9th. Since January 1, 10.73 inches of rain have fallen at Greystones, or, however, only 48 days.

**JUNE.**—This month shows a marked contrast to June, 1887, which will be long remembered as one of the driest and warmest months on record in Dublin. The mean temperature fell 6.1° short of that of June, 1887; the mean height of the barometer was .275 inch lower; and more than ten times as much rain fell, on eighteen as compared with five days. The only meteorological factor which corresponded in the two years was the direction of the wind. In the past month, as in June, 1887, there was a singular preponderance of polar (N., N.E., and E.) winds. Were it not for a bright period in the third week, the month would have been a singularly cheerless one.

In Dublin the mean temperature (56.2°) was decidedly below the average (57.8°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 56.1°. In the twenty-three years ending with 1887, June was coldest in 1832 (M. T. = 55.6°), and in 1879 (the "cold year") (M. T. = 55.9°). It was warmest in 1887 (M. T. = 62.6°), in 1845 (M. T. = 61.9°), and in 1868 (the "warm year") (M. T. = 60.5°). In 1886, the M. T. was 57.5°.

The mean height of the barometer was 29.935 inches, or a shade (.011 inch) above the average value for June—namely, 29.924 inches. The mercury marked 30.300 inches at 9 p.m. of the 18th, and fell to 29.443 inches at 9 a.m. of the 19th. The observed range of atmospheric pressure was, therefore, .857 inch—that is, a little less than nine-tenths of an inch. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 56.1°, or .57 above the value for May, 1888; that calculated by Knott's formula—viz.,  $\frac{\text{max.} + \text{min.}}{2} \times .41$ —Mean Temp. from the means of the daily maxima and minima was 55.1°, or 1.5° below the average mean



temperature for June, calculated in the same way, in the twenty years, 1865-84, inclusive 58.6°). The arithmetical mean of the maximal and minimal readings was 56.2°, compared with a twenty-three years' average of 57.8°. On the 26th the thermometer in the screen rose to 72.4°—wind S.S.E.; on the 14th the temperature fell to 43.2°—wind N. W. The minimum on the grass was 36.9° on the latter date. The rainfall was as much as 3.045 inches, distributed over eighteen days. The average rainfall for June in the twenty-three years, 1865-87, inclusive, was 1.639 inches, and the average number of rainy days was 14.0. The rainfall and the rainy days, therefore, were decidedly above the average. In 1878 the rainfall in June was very large—5.055 inches on nineteen days; in 1879 also 4.046 inches fell on 24 days. On the other hand, in 1874, only .405 of an inch was measured on nine days, and in 1888 only .677 of an inch fell on but six days. In 1887, the rainfall was only .232 of an inch, distributed over only five days.

There was a solar halo on the 26th. The atmosphere was foggy on the 2nd. High winds were noted on five days, but did not attain the force of a gale on any occasion. Temperature reached or exceeded 70° in the screen on only one day, as compared with 17 days in 1887. Luminous cirri were seen from Dublin on the northern horizon on the nights of the 15th and 26th. There was a thunderstorm on the evening of the 2nd, and heavy thunder showers occurred on the 18th and 13th.

The first two days of the month were chiefly dull and very cold for the time of year. On the afternoon of Saturday, June 3, however, temperature rose quickly, and in the evening a thunderstorm occurred.

The week ended Saturday, the 9th, may be described as a dull, cold rainy period. On Sunday, a thunderstorm depression was passing away to the northward, and a cloudy forenoon was followed by a fine warm afternoon. During the remainder of the week Ireland was under the influence of an irregular depression, which advanced slowly from the Peninsula and the Bay of Biscay. It caused frequent and heavy rains, and squally easterly (S.E. to S.W.) winds. On Friday the wind shifted to the northward in the extreme west of Ireland, and the change spread slowly thence over the whole country, but without much improvement in the weather, which remained broken to the end of the week. In Dublin the mean height of the barometer was 29.827 inches—pressure was greatest, 30.149 inches, at 9 p.m. of Monday; least, 29.541 inches, at 9 a.m. of Friday. The mean dry bulb temperature, from observations taken daily, at 9 a.m. and 9 p.m., was 53.5°. On Sunday the thermometers in the screen rose to 66.7°; on Wednesday they fell to 45.8°. Rain fell on six days to the amount of 1.134 inches—of this quantity .485 of an inch was measured on Tuesday. On Sunday, the distribution of temperature in Great Britain was remarkable—in the S.E. of England the thermometer rose to 82° or 84°; at Stormoway and Aberdeen it did not exceed 40°, and heavy snow fell in central Scotland. In Paris, on this day, a maximum of 94° F. was reported.

In the period from the 10th to the 16th inclusive, cool, changeable weather again prevailed. It was fine at the beginning and end of the week, but on Monday and the two following days rain or thunder showers occurred, and again early on Friday morning there was a considerable fall of rain. Thunder was heard in different directions on the afternoons of Tuesday and Wednesday, and heavy showers fell in places. Late on Friday evening the sky cleared quickly, and luminous cirriform clouds were seen at 11 p.m. on the northern horizon. This phenomenon seems to be peculiar to the northern twilight of June and July. In Dublin the mean height of the barometer was 29.672 inches—pressure was greatest, 30.118 inches, at 9 p.m. of Saturday; least, 29.443 inches, at 9 a.m. of Tuesday. The mean dry bulb temperature, from observations taken daily at 9 a.m. and 9 p.m., was 55.6°. On Friday the thermometers in the screen rose to 65.8°; on Thursday they fell to 43.2°. Rain fell on four days to the amount of .464 of an inch—of this quantity, .210 of an inch was measured on Thursday. A decided north-easterly current prevailed at the end of the week.

During the week ended Saturday, the 23rd, the weather, which was chiefly fine, dry, and bright in Scotland and Ireland, was for the most part unsettled, dull, cold, and showery, with thunderstorms, in England, Germany, and France. Throughout, a north-easterly (E. to N.) wind prevailed in Ireland, and until Wednesday only a few specks of cloud were seen in Dublin, whereas in London during the same time a dense cloud-canopy shut out the sun's rays so completely that temperature never rose above 55°. On Wednesday afternoon the sky towards E. assumed an unsettled appearance, and in the evening showers fell. At 8 a.m. on Thursday also there was heavy rain for a while. Two heavy, dull days followed, but Saturday was brilliant and warm. In Dublin the mean atmospheric pressure was 30.198 inches—the barometer ranging only from 30.300 inches at 9 p.m. of Monday to 30.085 inches at 9 p.m. of Wednesday. The mean dry bulb temperature, deduced from observations taken daily at 9 a.m. and 9 p.m. was 57.6°—the highest yet reached this season. The extreme temperatures were both recorded on Sunday, namely, 66.5° and 44.8°. On the morning of this day the grass minimum was 37.9°. Rain fell in measurable quantity on Wednesday only—amount, .089 inch.

During the week ended Saturday, 30th June, the weather fell into an unsettled, thundery condition, owing to the gradual advance from the southward of an irregular area of low atmospheric pressure, with several subsidiary thunderstorm depressions of small size. In Dublin the weather remained chiefly fine until Wednesday, and Tuesday was particularly bright and warm—the thermometer rising to 72.4° in the screen, the highest temperature recorded this season so far. In many parts of the United Kingdom, however, thunderstorms occurred almost daily after Sunday evening. On Monday and Tuesday great heat prevailed in England, the thermometer reaching 88° at Cambridge, 85° in London, 84° at Loughborough, and 82° at York, Barrow-in-Furness, and Liverpool on the former day. On Tuesday the maxima were found further north—namely, 85° at York, 84° at Loughborough, and at Naim (in Scotland), and 82° at Barrow-in-Furness. Next day heavy rain fell in Dublin (.651 of an inch), and there was great gloom. Two dull, rainy days followed, but Saturday was fair and bright. In Dublin the mean height of the barometer was 29.797 inches, pressure ranging between 30.135 inches at 9 a.m. of Sunday, and 29.547 inches at 9 a.m. of Friday. The mean temperature deduced from readings of the dry bulb thermometer, taken daily at 9 a.m. and 9 p.m., was



38.5°, the extreme temperatures being—highest, 72.4°, on Tuesday; lowest, 46.5°, on Saturday. Rain fell on five days to the amount of 1.248 inches. Of this large quantity, .951 of an inch was credited to Wednesday.

The rainfall in Dublin during the six months ending June 30th has amounted to 12.113 inches on 67 days, compared with 6.741 inches on 67 days during the same period in 1887, and a twenty-three years' average of 12.399 inches, on 95.7 days.

At Greystones, County Wicklow, the rainfall in June, 1888, was 4.18 inches, distributed over 15 days. Of this quantity, .95 inch fell on the 5th, .69 inch on the 11th, .79 inch on the 27th, and .67 inch on the 7th. Since January 1, 1491 inches of rain have fallen at Greystones, or, however, only 63 days.

JULY.—A wet, cloudy, cold month—almost as wet and cold as July, 1879, with which phenomenal month that now under review had many features in common. It is to be noted that, whereas July of 1887 was cold and wet in Scandinavia, very fine and hot in the British Isles and Central Europe, just the reverse held good as regards July 1888, which was favourable in Northern Europe. The cold weather of the 10th and 11th was, perhaps, without a parallel.

In Dublin the mean temperature (57.6°) was much below the average (60.3°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 56.6°. In the twenty-three years ending with 1887, July was coldest in 1879 (the "cold year") (M. T. = 57.2°). It was warmest in 1887 (M. T. = 63.7°), and in 1868 (the "warm year") (M. T. = 63.5°). In 1888, the M. T. was 61.0°. From this, 1887 proves to have been the warmest since the present records commenced, whilst July, 1888, was almost the coldest.

The mean height of the barometer was 30.747 inches, or 0.175 inch below the average value for July—namely, 29.922 inches. The mercury marked 30.178 inches at 9 p.m. of the 12th, and fell to 29.500 inches at 7 p.m. of the 2nd. The observed range of atmospheric pressure was, therefore, 0.678 inch—that is—a little less than an inch. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 56.6°, or 0.6° above the value for June, 1888; that calculated by Kaemts's formula—viz.,  $\text{min.} + (\text{max.} - \text{min.} \times .41) - \text{Moon Temp.}$ —from the means of the daily maxima and minima was 56.5°, or .33 below the average mean temperature for July, calculated in the same way, in the twenty years, 1865-84, inclusive (56.6°). The arithmetical mean of the maximal and minimal readings was 57.3°, compared with a twenty-three years' average of 60.8. On the 21st the thermometer in the screen rose to 68.7°—wind S.W.; on the 11th the temperature fell to 42.9°—wind N.N.W. The minimum on the grass was 36.4° on the latter date. The rainfall was as much as 3.881 inches, distributed over 22 days. The average rainfall for July in the twenty-three years, 1865-87, inclusive, was 2.350 inches, and the average number of rainy days was 17.1. The rainfall and the rainy days, therefore, were decidedly above the average. In 1880, the rainfall in July was very large—6.087 inches on 24 days; in 1871 also 4.391 inches fell on 28 days. On the other hand, in 1870, only .539 of an inch was measured on 8 days; in 1869 the fall was only .739 of an inch on 9 days, and in 1868 only .741 of an inch fell on but 5 days.

A solar halo appeared on the 1st. High winds were noted on 8 days, but attained the force of a gale on only one occasion—viz., the 2nd. In July, 1887, temperature reached or exceeded 70° in the screen on no fewer than 17 days. In July, 1888, the maximum was 65.7°. There was a storm of thunder, lightning, and heavy rain on the 31st. Thunder was heard on the 4th, and lightning was seen on the evening of the 10th.

Although the month opened with a fair promise, the weather soon fell into a changeable, rainy and stormy condition. This lasted for several days, but from Thursday, the 5th, cool N.E. winds and finer weather prevailed in Scotland and Ireland, while it remained dull and cold in England. On the forenoon of Sunday, the 1st, long sprays of cirrus cloud, in which a solar halo appeared, crossed the sky in rapid motion from N.W. to S.E. As the day wore on, cloud increased and in the evening rain fell. Monday was wet, and a fresh W. gale sprang up in the evening. The next two days were showery. Thunder was heard on Wednesday forenoon, and the same evening luminous cirriform clouds showed on the Northern horizon. Thursday was fine in Ireland, thundery in England. At night a sea fog came in along the Dublin and Wicklow coasts. During the last two days of the week a cool N.E. wind, and dry, sometimes bright, weather prevailed. In Dublin the mean height of the barometer was 29.654 inches—pressure ranging between 29.200 inches at 7 p.m. of Monday, and 30.086 inches at 9 a.m. of Saturday. The mean temperature, deduced from readings of the dry bulb thermometer, taken daily at 9 a.m. and 9 p.m., was 56.6°, or .4° degrees below the average for the time of year. The highest shade temperature was 67.9° on Monday; the lowest was 46.5° on Sunday. Rain fell on four days to the amount of 1.063 inches, of which .463 inches was registered on Sunday night.

The second week (8th-14th) was memorable for a "cold spell," which is, perhaps, without a parallel in July. It occurred in connection with a complex system of low atmospheric pressure which travelled slowly from the North of Scotland to the Baltic between Monday and Friday. In connection with this system, a subsidiary depression travelled quickly from N.N.W. to S.E., across Great Britain on Tuesday and Wednesday, causing equally N.W. to N. winds and heavy falls of cold rain, hail, and even snow. At 8 a.m. of Wednesday the thermometer stood at 44° in London, and the highest temperature there during the day was 53°. In Dublin, heavy cold showers fell on Tuesday evening, and at 9 p.m. the temperature was only 46.1°. From Thursday the air was warmer, but conditions were at no time settled during the week. In Dublin the mean height of the barometer was 30.047 inches, pressure ranging between 30.178 inches at 9 p.m. of Thursday and 29.893 inches at 9 a.m. of Monday. The mean dry bulb temperature, from observations taken at 9 a.m. and 9 p.m. daily, was 55.3°. On Friday the thermometer in the screen rose to 68.4°, on Wednesday it fell to 42.9°. Rain was registered on two days, the total quantity being .062 inch, of which .049 inch was measured on Tuesday. Hail and lightning were observed near Dublin on Tuesday evening.



For the third week (ending Saturday, the 21st) the record is again one of changeable, cloudy weather, occasional heavy rainfalls, and low temperatures for the season. In England the rain was often accompanied with thunder and lightning. The broken weather, as in previous weeks, extended to France and Central Europe generally; but it is worthy of note that in Scandinavia clear skies and high temperatures prevailed day after day, and the weather was almost rainless. During the week the barometer was lowest, in a series of irregular atmospheric depressions over the United Kingdom, France, and Germany—it was relatively high both in the extreme north of Europe and over the Iberian Peninsula in the south. In Dublin the mean height of the barometer was 29.768 inches—pressure ranging from 29.442 inches at 3.30 p.m. of Monday to 29.682 inches at 9 a.m. of Thursday. The mean dry bulb temperature deduced from daily readings at 9 a.m. and 9 p.m. was 57.7°. Temperature in the screen rose to 68.7° on Saturday and fell to 53.6° on Sunday. The rainfall amounted to .912 inch, distributed over six days. Of this quantity .329 inch fell on Thursday.

Very broken, wet, cold weather again prevailed throughout the fourth week (22nd–28th). Rain fell on every day, and as a rule the sky was densely clouded, shutting out all solar heat. Atmospheric conditions in the United Kingdom remained cyclonic. The barometer was generally lowest off the W. and N. coasts of Ireland, but on Wednesday and again on Friday the centres of well-formed depressions passed in a northeasterly direction across the S.E. of this country. These systems caused temporary N.E. winds while they were passing, but S. to W. and N. W. winds prevailed for the most part. In England and the north of Ireland thunderstorms occurred at times. In Dublin the mean height of the barometer was only 29.670 inches—pressure ranging from 29.392 inches at 4 p.m. of Monday to 29.810 inches at 9 p.m. of Saturday. The mean dry bulb temperature, deduced from daily readings at 9 a.m. and 9 p.m., was only 56.9°. Temperature in the screen rose to 66.7° on Tuesday and fell to 49.5° on Friday. Rain fell on every day during the week—the total quantity being 1.347 inches, of which .509 inch was measured on Friday and .364 inch on Tuesday.

The weather remained cold and broken during the last three days—the 29th and 30th were dull, cold, damp days. On the 31st some hours of bright sunshine occurred, but in the afternoon a sharp thunderstorm passed over Dublin from W.N.W.

The rainfall in Dublin during the seven months ending July 31st has amounted to 15.994 inches on 109 days, compared with 7.935 inches on 80 days during the same period in 1887, and a twenty-three years' average of 14.749 inches, on 112.6 days.

At Greystones, Co. Wicklow, the rainfall in July, 1888, was 4.52 inches, distributed over 12 days. Of this quantity, 1.07 inches fell on the 24th, .96 inch on the 27th, and .68 inch on the 18th. Since January 1, 1943 inches of rain have fallen at Greystones, on, however, only 75 days.

**AUGUST.**—As in 1887, so in 1888, August proved to be rather cool, very breezy, and showery. On the whole, conditions were more favourable in Dublin than in many parts of the country.

In Dublin the mean temperature (58.2°) was decidedly below the average (59.8°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 57.6°. In the twenty-three years ending with 1887, August was coldest in 1881 (M. T. = 57.0°), and warmest in 1871 (M. T. = 63.0°). In 1885, the M. T. was only 57.1°; in 1879 (the cold year) it was 57.7°; in 1887, it was 60.3°.

The mean height of the barometer was 29.957 inches, or 9.053 inch above the average value for August—namely 29.904 inches. The mercury marked 30.350 inches at 9 p.m. of the 31st, and fell to 29.589 inches at 9 p.m. of the 23rd. The observed range of atmospheric pressure was, therefore, 0.861 of an inch—that is, a little less than an inch. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 57.6°, or 1.0° above the value for July, 1888; that calculated by Kew's formula—viz.,  $\text{min.} + (\text{max.} - \text{min.} \times .41) = \text{Mean Temp.}$ —from the means of the daily maxima and minima was 57.0°, or 1.2° below the average mean temperature for August, calculated in the same way, in the twenty years, 1865–84, inclusive (58.4°). The arithmetical mean of the maximal and minimal readings was 58.2°, compared with a twenty-three years' average of 59.8°. On the 7th the thermometer in the screen rose to 71.4°—wind S.W.; on the 18th the temperature fell to 43.0°—wind S.E. The minimum on the gram was 36.2° on the latter date. The rainfall was 1.270 inches, distributed over twelve days. The average rainfall for August in the twenty-three years, 1865–87, inclusive, was 2.766 inches, and the average number of rainy days was 15.3. The rainfall, therefore, was considerably below the average, and so were the rainy days. In 1874 the rainfall in August was very large—4.946 inches on eighteen days—and in 1868, 4.745 inches fell on, however, only thirteen days. On the other hand, in 1884, only .777 inch was measured on eight days. In 1887, 1.520 inches of rain fell on sixteen days.

A solar halo appeared on the 18th. High winds were noted on as many as ten days, but did not attain the force of a gale on any one occasion. The atmosphere was foggy on the 10th. Thunder was heard on the 31st. Hail fell in heavy showers on the 29th. Temperature reached or exceeded 70° in the screen on only one day—or nine fewer than in August, 1887.

The month opened with a fair promise, and fine weather prevailed until Saturday, the 4th, on which day a depression, growing rapidly deeper, passed from Scotland across the North Sea, causing rain and squalls.

The weather of the week ending Saturday, the 11th, was finer and drier than had been the case for a long time before, and over England temperature rose to a high level for the time of year—maxima exceeding 80° being registered over the midland and south-eastern counties on Thursday and Friday, the 9th and 10th. In London and at Cambridge the thermometer reached 85° during this warm period. In Dublin the mean height of the barometer was 30.040 inches—pressure ranging from 30.202 inches at 9 p.m. of Sunday, the 5th, to 29.919 inches, at 9 p.m. of Saturday, the 11th. The mean temperature deduced from readings of the dry-bulb thermometer, taken daily at 9 a.m.



and 9 p.m., was 59.9°; that deduced from the maximal and minimal daily temperatures was 60.3°. The thermometer rose to 71.4° in the shade on Tuesday, having fallen to 46.0° on Sunday. Rain fell on two days—the total measurement being .262 of an inch, of which .218 of an inch was registered on Sunday.

The week ending Saturday, the 18th, was a period of fine weather—conditions were generally favourable, except on Sunday and Monday, when a rather deep depression was passing in a north-easterly direction across Ireland and Scotland, accompanied by showers and squalls. As this disturbance passed away, the sky cleared, and quiet, bright weather was experienced with a much lower temperature, particularly at night. In France and the south of England it was not so fine as in Ireland and Scotland, owing to the approach of some shallow depressions from the Peninsula. The wind was at first N.W., afterwards it settled in the N.E. and E. points of the compass. In Dublin the mean height of the barometer was 30.110 inches, the readings varying from 29.481 inches at 9 p.m. of Sunday to 30.314 inches at 9 a.m. of Saturday. The mean temperature, deduced from readings of the dry-bulb thermometer, taken daily at 9 a.m. and 9 p.m., was 56.3°; that deduced from the maximal and minimal daily temperatures was 56.0°. The thermometer in the shade rose to 68.0° on Sunday and fell to 42.0° on Saturday. Rain fell on only one day—Sunday—in appreciable amount, the measurement being .051 inch.

Although moderately warm, the weather was generally unsettled during the week ending Saturday, the 25th, and rain fell frequently and in many places heavily. The wind was chiefly southerly—on Sunday and Thursday it blew freshly in squalls. Sunday was dull and rainy. On Tuesday heavy thunder showers fell in the afternoon. On Thursday the wind freshened to a stiff breeze from S., and close rain fell for some time in and about Dublin. Friday and Saturday were fine, warm days. On Tuesday heavy thunderstorms and rains occurred over the southern half of France. In Dublin the mean height of the barometer was only 29.683 inches, or .426 inch below the corresponding value for the previous week (30.109 inches). Pressure was highest at 9 a.m. of Sunday (30.063 inches), and lowest at 9 p.m. of Thursday (29.880 inches). The mean temperature, deduced from readings of the dry-bulb thermometer taken daily at 8 a.m. and 9 p.m., was 58.3°; that deduced from the maximal and minimal daily temperatures was 59.5°. The screened thermometers rose to 67.0° on Friday and fell to 50.1° on Sunday. Rain was measured on four days, the total precipitation being .499 inch. Of this amount .231 inch fell on Tuesday, and .228 inch on Sunday.

The closing period of the month from Sunday, the 26th, to Friday, the 31st, was chiefly variable, showery, and decidedly cool for the time of year. The month closed, however, as it had opened, with a high barometer and quiet, fine weather. On Tuesday, the 29th, a secondary depression, which grew much deeper as it moved, travelled across England from the south of Wales to Lincolnshire. It caused fresh gales and heavy rains with thunder all over England; in Ireland drenching showers of rain and in places hail. As this disturbance passed off, the barometer rose quickly to the maximum for the month, 30.350 inches, at 9 p.m. of Friday, the 31st, while the wind drew towards N. with cool, dry weather.

The rainfall in Dublin during the eight months ending August 31st has amounted to 17.264 inches on 121 days, compared with 9.455 inches on 86 days during the same period in 1857, and a twenty-three years' average of 17.515 inches, on 127.1 days.

At Greystones, County Wicklow, the rainfall in August, 1888, was 1.63 inches, distributed over 11 days. Of this quantity, .37 inch fell on the 19th, .34 inch on the 23rd, and .18 inch on the 2nd. Since January 1, 1846 inches of rain have fallen at Greystones, on, however, only 86 days.

**SEPTEMBER.**—September, 1888, proved a fine month, with very high barometer, variable light winds, a scanty rainfall, low temperature, and frequent fogs. The prevailing winds were from polar quarters—from N.W., N., and E. An anticyclonic distribution of pressure held over the British Islands and Central Europe during the greater part of the month, and in Dublin the barometer remained continuously above 30 inches from the evening of the 4th to the night of the 27th.

In Dublin the mean temperature (54.4°) was—as in 1857—decidedly below the average (55.8°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 53.7°. In the twenty-three years ending with 1857, September was coldest in 1866 and in 1882 (M. T. = 53.0°), and warmest in 1865 (M. T. = 61.4°). In 1880 the M. T. was as high as 58.6°; in the year 1879 (the cold year) it was 54.5°; and in 1857, it was 54.0°.

The mean height of the barometer was 30.179 inches, or 0.262 inch below the average value for September—namely, 30.441 inches. The mercury marked 30.516 inches at 9 a.m. of the 8th, and fell to 29.768 inches at 9 a.m. of the 29th. The observed range of atmospheric pressure was, therefore, only .748 of an inch, that is, a little less than three-quarters of an inch. The mean temperature deduced from daily readings of the dry-bulb thermometer at 9 a.m. and 9 p.m. was 53.7°, or 3.9° below the value for August, 1888; that calculated by Kaemsa's formula—viz.,  $\frac{\text{max} + (\text{min} - \text{min})}{\times .41}$  = Mean Temp.—from the means of the daily maxima and minima was 53.4°, or 1.7° below the average mean temperature for September, calculated in the same way, in the twenty years, 1865-84, inclusive (55.1°). The arithmetical mean of the maximal and minimal readings was 54.0°, compared with a twenty-three years' average of 55.8°. On the 5th the thermometer in the screen rose to 65.5°—wind N.W.; on the 30th the temperature fell to 39.2°—wind N. The minimum on the grass was 34.0° on the latter date. The rainfall was only .725 of an inch, distributed over ten days—both rainfall and rainy days were much below the average. The average rainfall for September in the twenty-three years, 1865-87, inclusive, was 2.288 inches, and the average number of rainy days was 15.0. In 1871 the rainfall in September was very large 4.048 inches on, however, only thirteen days. On the other hand, in 1865, only .056 inch was measured on but three days.

A solar halo appeared on the 27th. High winds were noted on only three days, and did not attain



the force of a gale on any occasion. Hall fell on the 6th. The atmosphere was foggy on the 8th, 9th, 15th, 17th, and five following days, and on the 28th. Heavy dews and wet fogs were experienced at night during the anticyclonic period of about the middle of the month.

On Saturday, September 1st, pressure gave way quickly, the wind backed to S.W. and freshened to a stiff breeze, with increasing cloud, slight showers, and a rising temperature.

During the week ending Saturday, the 8th, the weather was changeable, with prevalent W. to N.W. winds. Until Friday atmospheric pressure was low in the North, and many secondary depressions passed in an easterly direction across Ireland and Great Britain. At the close of the week an anticyclone, in which the barometer stood above 30.50 inches, advanced over Ireland from the Atlantic, its easterly movement being accompanied with a shift of wind towards N., a falling temperature, and drier and brighter weather. Showers fell on several days, but heavily on Thursday alone. On that day hail was observed, and thunder was heard at Monkstown, Co. Dublin. In Dublin the mean height of the barometer was 30.076 inches; pressure ranged between 29.572 inches at 9 a.m. of Tuesday, and 30.616 inches at 9 a.m. of Saturday. The mean dry-bulb temperature, deduced from observations taken daily at 9 a.m. and 9 p.m., was 55.8°. The mean of the daily maxima and minima was 56.4°. Temperature rose to 65.5° on Wednesday (wind, W.S.W.), and fell to 43.3° on Saturday (wind N.). Rain fell on four days to the amount of .364 inch—of this quantity .232 inch was registered on Thursday, when hail fell with the rain. There was a slight smoke fog on Saturday evening.

In the second week (9th-15th), inclusive) quiet dry weather prevailed generally. The type of distribution of atmospheric pressure was chiefly anticyclonic. At first temperature was very low—the maximum on Sunday being only 53.7°. The nights were cold, and heavy dews fell. On Friday the barometer gave way considerably, and at night a good deal of rain fell, as a shallow V-shaped depression came in from the westward. The wind was throughout light and variable; on Sunday it blew from N.E., on Monday and Tuesday from N.W., then from S.E., and finally on Saturday from S.W. and N.W. In Dublin the mean height of the barometer was 30.310 inches—pressure ranged from 30.473 inches at 9 p.m. of Wednesday to 30.668 inches at 9 a.m. of Saturday. The mean temperature, deduced from readings of the dry-bulb thermometer, taken daily at 9 a.m. and 9 p.m., was 54.2°; that deduced from the daily maxima and minima was 54.3°. Temperature rose to 64.1° on Friday (wind, S.E.), and fell to 42.4° on Thursday (wind, S.E. also). Rain fell on Friday night to the amount of .119 inch, and on Saturday .011 inch was registered—total precipitation .130 inch in two days.

Throughout the week ending Saturday, the 22nd, the weather was governed by a large area of high atmospheric pressure (anticyclone), which stretched across Central Europe from west to east. The changes in pressure were slight within the limits of the anticyclone, but on Friday a decided depression passed across the north of Scandinavia. Quiet, cool weather accompanied the anticyclone. At first the sky was clear, but dense wet ground fogs at night were finally followed by dull, cloudy days, and the week closed with gloomy weather. In Dublin the mean height of the barometer was 30.303 inches; the highest reading was 30.352 inches at 9 a.m. of Tuesday, the lowest was 30.250 inches at 9 p.m. of Saturday. The extreme range of pressure was, therefore, only .092 inch. The mean temperature deduced from readings of the dry-bulb thermometer taken daily at 9 a.m. and 9 p.m. was 52.1°. The mean of the maximal and minimal daily temperatures was 53.4°. The thermometer rose to 61.7° on Monday (wind, N.N.W.), and Wednesday (wind, E.N.E.), and fell to 43.3° on Tuesday (wind, E.N.E.). At some inland stations the diurnal range of temperature was very large on several days. No rain fell, but the ground was watered by the heavy dews and wet fogs, which were the chief phenomena of the week.

During the week ending Saturday, the 29th, the weather remained favourable, although it was less settled than in the previous week. At first the atmosphere was very hazy, and the amount of cloud was large. An extensive but shallow area of low pressure formed over southern England, St. George's and the English Channels, and France, on Sunday and Monday, causing rain or showers and some thunderstorms in those regions. On Tuesday a strong easterly wind blew in the Irish Sea. Wednesday and Thursday were fine, but on the latter day the sky became overcast, a solar halo appeared in a canopy of "sheet-cirrus," and rain fell in the evening and at night. Friday and Saturday were mild, cloudy days. On Saturday afternoon a shift of wind from W. to N. took place, some showers fell and temperature, which had been comparatively high, gave way rapidly. In Dublin the mean height of the barometer was 30.066 inches, or .237 inch below the mean for the preceding week. Pressure rose to 30.270 inches at 9 a.m. of Wednesday, and fell to 29.783 inches at 9 a.m. of Saturday. The mean temperature deduced from daily readings of the dry-bulb thermometer at 9 a.m. and 9 p.m. was 55.3°. The arithmetical mean of the highest and lowest daily temperatures was 54.4°. Temperature was highest, 62.6°, on Friday (wind, S.S.E.), and lowest, 45.9°, on Saturday (wind, N.). Rain fell on three days to the amount of .255 inch. On Thursday the measurement was .210 inch. A solar halo was seen at noon of that day.

Sunday, the 30th, was a clear, cold day, with bright sunshine at first, and a crisp air and northerly breeze. The minimal temperature on this day was 39.2°.

The rainfall in Dublin during the nine months ending September 30th has amounted to 17.992 inches on 131 days, compared with 16.968 inches on 112 days during the same period in 1887, and a twenty-three years' average of 19.808 inches, on 143.1 days.

At Greystones, Co. Wicklow, the rainfall in September, 1888, was .87 of an inch, distributed over only five days. Of this quantity, .36 of an inch fell on the 28th, and .28 of an inch on the 1st. Since January 1, 21.63 inches of rain have fallen at Greystones, on, however, only 91 days.



OCTOBER.—A generally favourable month, with much quiet fine weather except at the beginning and end. The first week was very cold and showery, and fresh northerly winds prevailed. An anticyclonic period followed, in which the weather was chiefly fine, but foggy or cloudy. Except for a few hours on the 12th, the barometer did not fall below 30 inches from the 6th to the 24th inclusive. The last seven days were remarkably warm, with strong S.W. winds or gales and frequent showers. Temperature was giving way decidedly at the very close of the month.

In Dublin the mean temperature ( $49.1^{\circ}$ ) was—as in September—below the average ( $49.8^{\circ}$ ); the mean dry bulb readings at 9 a.m. and 9 p.m. were  $48.2^{\circ}$ . In the twenty-three years ending with 1887, October was coldest in 1880 (M. T. =  $45.4^{\circ}$ ), and in 1885 (M. T. =  $45.5^{\circ}$ ), and warmest in 1875 (M. T. =  $53.1^{\circ}$ ). In 1886, the M. T. was as high as  $52.0^{\circ}$ ; in the year 1879 (the "cold year"), it was  $49.7^{\circ}$ ; and in 1887 it was as low as  $47.3^{\circ}$ .

The mean height of the barometer was 30.030 inches, or 0.188 inch above the average value for October—namely, 29.842 inches. The mercury rose to 30.417 inches at 9 p.m. of the 21st, and fell to 29.230 inches at 9 p.m. of the 2nd. The observed range of atmospheric pressure was, therefore, 1.187 inches—that is, a little less than an inch and two-tenths. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was  $48.2^{\circ}$ , or  $5^{\circ}$  below the value for September, and  $2^{\circ}$  below that for August, 1888; that calculated by Kämtz's formula—viz.,  $\text{mean} + (\text{max.} - \text{min.} \times .41) = \text{Mean Temp.}$ —from the means of the daily maxima and minima was  $48.1^{\circ}$ , or  $1^{\circ}$  below the average mean temperature for October, calculated in the same way, in the twenty years, 1865–84, inclusive ( $49.2^{\circ}$ ). The arithmetical mean of the maximal and minimal readings was 49.1, compared with a twenty-three years' average of  $49.8^{\circ}$ . On the 27th the thermometer in the screen rose to  $66^{\circ}$ —wind S.S.W.; on the 2nd the temperature fell to  $32^{\circ}$ —wind N.W. The minimum on the grass was  $27.9^{\circ}$  on the 6th. The rainfall was 1.227 inches, distributed over 15 days—both rainfall and rainy days were perceptibly more than the values for the preceding month of September—viz., 728 of an inch on 10 days. The average rainfall for October in the twenty-three years, 1865–87, inclusive, was 3.111 inches, and the average number of rainy days was 17.4. The rainfall, therefore, was again much below the average, and the rainy days were slightly below it. In 1889 the rainfall in October was very large—7.358 inches on 15 days. In 1875, also, 7.049 inches fell on 23 days. On the other hand, in 1884, only .834 inch was measured on but 14 days, and in 1885 only .655 inch on 15 days.

Lunar halos appeared on the 18th and 20th. High winds were noted on 7 days, and attained the force of a gale on three occasions, the 26th, 28th, and 30th. The atmosphere was more or less foggy in Dublin on the 9th, 11th, 15th, 18th, 17th, 22nd, and 23rd. Lightning was seen on the night of the 2nd, when thunder-showers passed along the Welsh coast over the sea from N.N.W. to S.E.E. Hail fell with heavy showers of rain on the 3rd and 6th.

Not for many years has October been ushered in with such cold and inclement weather as that which prevailed during the first week. A succession of polar depressions, or cyclonic systems, with their embolisms, travelled southwards, or southwestwards, across Western Europe. Strong northerly (N.W. to N.E.) winds were consequently prevalent over the British Islands, accompanied by squalls of cold rain, hail, and sleet or snow. On Monday, the 1st, icy rain fell and the Dublin and Wicklow mountains became snowcapped; a sharp frost followed at night, when the thermometer in the screen fell to  $37^{\circ}$  at Parnassstown. Lightning occurred over the Irish Sea on Tuesday evening. Hail fell next morning and also on Saturday. In Dublin the mean height of the barometer was 29.735 inches, or .331 inch below the mean for the previous week (30.066 inches), and no less than .568 inch below that for the week ending September 22nd. The barometer rose to 30.228 inches at 9 p.m. of Saturday (wind N.), having fallen to 29.230 inches at 9 p.m. on Tuesday (wind, N.W.). The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 3 p.m. was  $41.7^{\circ}$ , or nearly  $12^{\circ}$  below the corresponding value for the preceding week ( $53.6^{\circ}$ ), and fully  $10^{\circ}$  below the average for the time of year. The arithmetical mean of the highest and lowest daily temperatures was  $42.5^{\circ}$ . Temperature rose to  $52.8$  on Thursday (wind, W.) and fell to  $32.9^{\circ}$  on Tuesday (wind, N.W.). Rain fell on five days—the total measurement being .864 inch, of which .170 of an inch was measured on Monday. Hail fell on Wednesday and Saturday, and lightning was seen on Tuesday evening.

In the period from the 7th to the 13th inclusive, the weather was generally favourable and much milder than during the previous week. The barometer was throughout highest off the west and south-west of Ireland, so that the prevailing winds were N.W. and W. Some extensive, although not unusually deep depressions, passed eastwards across Scotland, the Norwegian Sea, and Scandinavia during the week; consequently, the amount of cloud was large, and the wind freshened considerably at times, with a decided rise of temperature in Ireland. Sharp night frosts occurred in the midland and eastern counties of England until Tuesday. Very little rain fell in the United Kingdom, but in Southern Germany there were heavy rains and snows in the earlier part of the week. In Dublin the mean height of the barometer was 30.157 inches, or .422 of an inch above the mean for the preceding week (29.735 inches). The mercury rose to 30.278 inches at 8 a.m. of Monday (wind N.W.), and fell to 29.844 inches at 9 p.m. of Friday (wind W.). The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was  $45.7^{\circ}$  or  $7^{\circ}$  above the value for the previous week ( $41.7^{\circ}$ ). The arithmetical mean of the highest and lowest daily temperatures was  $49.5^{\circ}$ . Temperature in the screen rose to  $55.5^{\circ}$  on Friday (wind, W.), having fallen to  $40.1^{\circ}$  on Sunday (wind, N.W.). Rain fell on two days—the total measurement being only .083 of an inch, of which amount .073 of an inch fell on Sunday. The air was lightly foggy on the mornings of Tuesday and Thursday. A rapid fall of temperature occurred on Friday night.

During the week ended Saturday, the 26th, the weather was generally favourable—brilliant at the beginning and close; dull, foggy and showery in the intervening period, when atmospheric



depressions were travelling northwards outside the western shores of Ireland and Scotland. In England the diurnal range of temperature was considerable, calm, foggy, frosty nights being succeeded by bright, warm days. In Scotland and Ireland the greater prevalence of clouds checked radiation, and so the extremes of temperature were less pronounced. In Dublin the mean height of the barometer was as much as 30.283 inches, the readings varying from 30.373 inches at 9 a.m. of Monday (wind, W.N.W.) to 30.101 inches at 9 p.m. of Thursday (wind, S.S.E.). The mean temperature, deduced from readings of the dry bulb thermometer taken daily at 9 a.m. and 9 p.m. was 47.1°; that deduced from the highest and lowest daily temperatures was 48.7°. The thermometers in the screen rose to 58.4° on Thursday (wind, S.S.E.), and fell to 35.1° on Sunday (wind, W.N.W.). Rain fell on three days, but only .072 of an inch was registered. Of this amount, .052 of an inch was measured on Tuesday.

In the fourth week (21st to 27th inclusive), conditions were at first anticyclonic, and the weather was fine and quiet, with mild, bright days, and cold foggy nights. At 7.45 p.m. of Tuesday, the thermometer read 42.2°, and a dense fog prevailed in Dublin; an hour later temperature was 7° higher, a S.W. wind was blowing, and there was clear moonlight. Atmospheric pressure now gave way in the W. and N., and a mild south-westerly current set in, causing a decided and remarkable rise of the thermometer. The last three days of the week were summerlike as regards temperature, but strong S.W. winds and showers took the place of the previous calms and fogs. The mean temperature of Saturday was 63.9°, or about 16° above the average for the time of year. On this day the screen thermometer rose to 66.6°, but did not fall below 61.2°. The mean of the 9 a.m. and 9 p.m. readings was 62.9°. In Dublin the mean height of the barometer was 30.040 inches. The mercury rose to 59.417 inches at 9 p.m. of Sunday (wind calm), and fell to 29.684 inches at 9 p.m. of Thursday (wind S.S.W.). The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 58.0°, or 11.2° above that for the week ending October 6. The arithmetical mean of the highest and lowest daily temperatures was 52.9°. Temperature in the screen rose to 66.6° on Saturday (wind, S.S.W.), having fallen to 33.1° on Tuesday (wind, W.). Rain fell on three days to the amount of .420 of an inch. Of this quantity .351 of an inch was measured on Saturday.

The last four days of the month were changeable, south-westerly gales prevailing on Sunday, the 26th, and Tuesday, the 30th. Temperature showed a gradual but decided tendency to fall while the wind drew towards W.

The rainfall in Dublin during the ten months ending October 31st has amounted to 19.219 inches on 147 days, compared with 12.966 inches on 123 days during the same period in 1887, and a twenty-three years' average of 22.914 inches on 108.5 days.

At Greystones, Co. Wicklow, the rainfall in October, 1888, was 2.23 inches, distributed over 13 days. Of this quantity .69 of an inch fell on the 27th, and .36 of an inch on the 1st. Since January, 1, 23.46 inches of rain have fallen at Greystones, on, however, only 104 days.

**NOVEMBER.**—This was the wettest and most stormy November experienced in Dublin since the present records were begun more than a quarter of a century ago. There was scarcely any frost, and on two occasions severe thunderstorms occurred. Until the 15th, an anticyclone held over Scandinavia and the Baltic, while pressure was low to the southwestward and finally to the north-westward of the British Islands. Hence strong S.E. to S.W. winds and gales prevailed, and rain fell frequently. During the latter half of the month the barometer was very low in the far North, but high over France and Spain; hence strong W. winds or gales were prevalent, and the rainfall was again excessive. In Dublin, the precipitation was nearly three times the average, and there were only four days on which no rainfall was registered. The mean temperature was 5° above the average.

In Dublin the mean temperature (47.5°) was much above the average (44.5°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 47.4°. In the twenty-three years ending with 1887, November was the coldest in 1878 (M. T. = 38.2°), and in 1870 (M. T. = 42.2°), and warmest in 1881 (M. T. = 50.5°). In 1886, the M. T. was as high as 45.4°; in the year 1879 (the "cold year"), it was 43.9°; and in 1887 it was as low as 42.6°.

The mean height of the barometer was 29.690 inches, or 0.177 inch below the average value for November—namely, 29.867 inches. The mercury rose to 30.188 inches at 7 p.m. of the 21st, and fell to 29.075 inches at 3 p.m. of the 27th. The observed range of atmospheric pressure was, therefore, 1.093 inches—that is, a little less than an inch and one-tenth. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 47.4°, or only 0.8° below the value for October, and 6.8° below that for September, 1888; that calculated by Kaemtz's formula—viz,  $\text{min.} + (\text{max.} - \text{min.} \times .41) = \text{Mean Temp.}$ —from the means of the daily maxima and minima was 46.6°, or 3.1° above the average mean temperature for November, calculated in the same way, in the twenty years, 1865–84, inclusive (43.7°). The arithmetical mean of the maximal and minimal readings was 47.5°, compared with a twenty-three years' average of 44.5°. On the 16th the thermometer in the screen rose to 59.50° in the night—wind S.W.; on the 26th the temperature fell to 30.8°—wind calm. The minimum on the grass was 25.0° on the 16th. The rainfall was 6.549 inches, distributed over 26 days—both rainfall and rainy days were largely in excess of the values for the preceding month of October—viz, 1.227 inches on 16 days. The average rainfall for November in the twenty-three years, 1865–87, inclusive, was 2.340 inches, and the average number of rainy days was 18.9. The rainfall, therefore, was very much above the average, and the rainy days were equally in excess of it. In 1876 the rainfall in November was large—3.614 inches on 20 days. In 1871, also, 3.414 inches fell on 24 days, and in 1887, 3.012 inches fell on 13 days. On the other hand, in 1870, only 1.218 inches were measured on but 11 days, and in 1879 only 1.251 inches on but 10 days. The vast excess of the rainfall in 1888 is evident from these figures.



A lunar corona appeared on the 24th. High winds were noted on 18 days, and attained the force of a gale on ten occasions, the 2nd, 4th, 10th, 12th, 15th, 16th, 22nd, 24th, 25th, and 29th. The atmosphere was more or less foggy in Dublin on the 13th, 14th, 28th, 29th, and 30th. Lightning was seen on the night of the 1st. Severe thunderstorms occurred on the 29th and 28th. Hail fell with heavy showers of rain on the 5th, 6th, 20th, and 28th. Sleet and snow fell on the 20th and 27th.

Early on the morning of Thursday, November 1, the wind shifted to N., afterwards veering towards N.E. and E. Some flashes of lightning were seen after 9 p.m. of this day. A heavy fall of rain occurred on Friday evening. Saturday, the 3rd, was a mild dull day.

Very unsettled, equally, wet weather held almost throughout the week ending Saturday, the 10th. On Tuesday and Wednesday conditions were temporarily more favourable, an easterly air-current having gained the upper hand. At this time temperature became low and the air much drier than previously or afterwards. The bad weather was determined by the permanent position taken up by an area of high atmospheric pressure over Scandinavia, while a series of atmospheric depressions approached the S.W. of Ireland from the Atlantic, but made no further progress in an easterly or north-easterly direction. Strong S.E. winds or gales and heavy rains accordingly prevailed in Ireland, the E. and S.E. coasts suffering most severely, as is usual under the circumstances. In England and Scotland the weather was colder and drier, while in Germany sharp frosts occurred. In Dublin the mean height of the barometer was 29.706 inches. The mercury rose to 29.900 inches at 9 a.m. of Tuesday (wind E.), and sank to 29.409 inches at 4 p.m. of Saturday (wind S.S.E.). The temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 47.1°. The arithmetical mean of the highest and lowest daily temperatures was also 47.1°. Temperature in the screen rose to 51.4° on Monday (wind E.S.E.), and sank to 39.3° on Wednesday (wind also E.S.E.). There were gales on Sunday, Thursday, and Saturday, and rain fell on six days to the large amount of 1.739 inches. Of this quantity, .652 of an inch was measured on Sunday (wind E.S.E.).

In the second week (11th to 17th inclusive) the weather was rough and unsettled, except on Sunday, Tuesday, and Wednesday, which were fine days. The rainfall was indeed far less heavy than in the previous week, but the storms were more severe. Temperature remained very high for the season, particularly at night, and in fact the highest reading for the month (59.4°) occurred at night, in the early morning hours of Friday, the 16th. At first the winds were S. to S.E., but after Tuesday they varied between S. and W., and on Saturday they drew into W.N.W. In Dublin the mean height of the barometer was 29.630 inches, the readings ranging from 29.232 inches at 9 p.m. of Monday (wind S.S.E.) to 29.983 inches, at 9 p.m. of Saturday (wind W.N.W.). The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 50.2°, or 6° above the average for the time of year. The arithmetical mean of the highest and lowest temperatures was 50.1°. The thermometer in the screen rose to 59.4° on the early morning of Friday (wind S.W.), and fell to 42.1° on Sunday (wind S.S.W.). Rain fell on five days to the amount of .546 inch, the largest fall in 24 hours being .210 inch on Monday. Hail occurred at 1.15 p.m. of Friday. At 8 a.m. of Saturday atmospheric pressure ranged from 28.67 inches at Bodø, in the N.W. of Norway, to 30.46 inch at Lyons. Under these circumstances very strong S.W. to W gales prevailed over Western Europe.

During the week ended Saturday, the 24th, there was another period of open, stormy, rainy weather. Throughout the week the barometer was very low over the northern parts of Scandinavia and the Norwegian Sea (29.34 inches to 29.40 inches), and equally high over the Peninsula and southern France (30.31 inches to 30.61 inches). Accordingly, strong S.W. and W. gales swept in rapid succession across the British Islands, accompanied by generally high but unsteady temperature and frequent showers of rain. On Tuesday, a sudden cold "snap" occurred—sleet, snow, and hail fell, and at 2.40 p.m. a sharp storm of thunder, lightning, hail, and gravel passed over Dublin from W.N.W. The lightning was very vivid and of a deep violet colour. On Wednesday temperature rose again, remaining very high to the close of the week, except in Scotland, where a second "chill" was experienced on Friday. In Dublin the mean atmospheric pressure was 29.935 inches; the barometer fell to 29.701 inches at 9 p.m. of Monday (wind W. by N.), and rose to 30.168 inches at 7 p.m. on Wednesday (wind W.S.W.). The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 49.7 or 6.5° above the average for the time of the year. The arithmetical mean of the highest and lowest daily temperatures was 49.8°. Temperature in the screen rose to 56.5° on Saturday (wind W.S.W.), having fallen to 37.4° on Tuesday (W.N.W.). Rain fell on six days to the amount of .428 inch. The largest rainfall in 24 hours was .108 inch on Monday. There was a lunar corona at 11.30 p.m. of Saturday.

The stormy, rainy weather so prevalent throughout the month reached a climax in the period from the 25th to the 30th inclusive. It was ushered in by a fresh to strong S.W. gale, a high temperature, and heavy showers on Sunday, the 25th. A lull occurred next day, but Tuesday, the 27th, was a cold wet day, temperature not rising above 41.4°, and sleet falling mingled with rain. A frosty night and morning followed, but on Wednesday a dense sheet of cirro-stratus overpread the sky from S.W., while detached cumulus clouds came up in an undercurrent from S.E. In the afternoon rain and hail fell in torrents, accompanied by much thunder and strangely vivid lightning. The rainfall in the storm amounted to 1.811 inches, most of which fell within three hours. On Thursday there was an easterly to southeasterly gale, and a driving rain continued for several hours. The last day of the month was wet and gloomy to fins. In Dublin the barometer sank to 29.073 inches at 3 p.m. of Tuesday, the 27th (wind N.N.W.). Temperature in the screen rose to 37.5° on Sunday forenoon (wind S.W.), and fell to 30.8° on Wednesday morning (wind, calm). Rain fell on every one of the six days, to the amount of no less than 3.018 inches, of which .544 of an inch was measured on Tuesday, 27th; 1.619 inches on Wednesday, 28th; and .657 of an inch on Thursday, 29th—2.690 inches on three days.



The rainfall in Dublin during the ten months ending November 30th has amounted to 26.768 inches on 173 days, compared with 11.878 inches on 141 days during the same period in 1887, and a twenty-three years' average of 25.254 inches on 177.4 days.

At Greystones, Co. Wicklow, the rainfall in November, 1888, was 5.02 inches, distributed over 19 days. Of this quantity .54 of an inch fell on the 28th, .53 of an inch on the 29th, and .49 of an inch on the 2nd. Since January 1, 28.83 inches of rain have fallen at Greystones, on, however, only 123 days.

DECEMBER.—A mild changeable month, setting in with a period of warmth, which was remarkable for the time of year, the mean temperature of the first week being as high as 51.8°. Southerly winds (S.E. through S. and S.W. to W.) vastly preponderated. Fogs were prevalent in an anticyclonic period from the 9th to the 18th. A very sharp frost occurred on Sunday, the 30th, the maximal temperature during the day being only 39.7°. There were but three gales. On eight days the sky was overcast—on four it was clear.

In Dublin the mean temperature (43.9°) was—as in November—above the average (41.1°); the mean dry bulb readings at 9 a.m. and 9 p.m. were 43.3°. In the twenty-three years ending with 1887, December was coldest in 1878 (M. T. = 32.8°), and in 1874 (M. T. = 30.8°), and warmest in 1866 (M. T. = 46.2°). In 1888, the M. T. was as low as 37.9°; in the year 1879 (the "cold year") it was also 37.9°. In 1887 the M. T. was 38.9°.

The mean height of the barometer was 29.848 inches, or 0.054 inch below the average value for December—namely, 29.902 inches. The mercury rose to 30.465 inches at 9 a.m. of the 16th and fell to 28.986 inches at 8 p.m. of the 21st. The observed range of atmospheric pressure was, therefore, 1.479 inches—that is, a little less than two inches. The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 43.3°, or 4.1° below the value for November, and 4.9° below that for October, 1888; that calculated by Kew's formula—viz.,  $\text{min.} + (\text{max.} - \text{min.} \times .41) = \text{Mean Temp.}$ —from the means of the daily maxima and minima was 44.7°, or 2.2° above the average mean temperature for December, calculated in the same way, in the twenty years, 1868–84, inclusive (40.5°). The arithmetical mean of the maximal and minimal readings was 43.6°, compared with a twenty-three years' average of 41.1°. On the 3rd and the 5th the thermometer in the screen rose to 53.6°—wind S.S.W. and S. respectively; on the 30th the temperature fell to 26.4°—wind W. The minimum on the grass was 22.9° on the 30th. The rainfall was 2.911 inches, distributed over 17 days. The average rainfall for December in the twenty-three years 1865–87, inclusive, was 2.419 inches, and the average number of rainy days was 17.0. The rainfall therefore, was decidedly above the average, while the rainy days were equal to it. In 1876 the rainfall in December was very large—7.566 inches on 22 days. In 1872, 4.032 inches fell on as many as 24 days; and in 1863 (which was otherwise a fine and dry year), 4.749 inches fell on as many as 27 days. On the other hand, in 1867, only .771 of an inch was measured on 12 days; and in 1871, the December rainfall was only .797 of an inch on 15 days. In 1885, only .742 of an inch of rain was measured on but 10 days, but in 1886 the rainfall was 3.848 inches, distributed over as many as 21 days. In 1887 ("the dry year"), the rainfall was 1.213 inches on 19 days.

A lunar halo appeared on the 24th, and a solar halo on the 15th. There was a lunar rainbow on the night of the 21st. High winds were noted on 10 days, and attained the force of a gale on three occasions, the 6th, 11th, and 21st. The atmosphere was more or less foggy in Dublin on the 5th, 9th, 10th, 12th, 13th, 14th, 17th, 18th, and 30th. Lightning was seen on the night of the 27th. Hail fell with heavy showers of rain on the 11th. Neither sleet nor snow was observed during the month. Saturday, the 1st, was a mild fine day.

Singularly mild, but cloudy and rainy, weather prevailed during the greater part of the first week. Saturday, the 8th, only was cool and bright. Until this day an area of high barometer (anticyclone) held over France and Germany, while rather steep gradients for S. and S.W. winds lay across the British Isles and Scandinavia. In southern Germany and central France sharp frost occurred daily after Sunday the 2nd, but within the region of the south-westerly winds the air was remarkably soft and warm. Atmospheric pressure became equalized over Western Europe on Friday, so that the wind fell light, the sky cleared, and temperature fell fast. In Dublin the mean height of the barometer was 29.862 inches—the highest reading being 30.206 inches at 9 p.m. of Saturday (wind W.), and the lowest 29.434 inches, at 9 a.m. of Monday (wind S.S.W.). The mean temperature deduced from daily readings of the dry bulb thermometer at 9 a.m. and 9 p.m. was 51.4°, or 8.8° above the corresponding value for the previous week, and 9.7° above that for the week ending October 6, 1888 (41.7°). The arithmetical mean of the highest and lowest daily temperatures was 51.8°. Temperature in the screen rose to 59.0° on Monday (wind S.S.W.), and in the night of the 4th–5th (Tuesday–Wednesday) (wind S.) and fell to 39.0° on Saturday (wind W.). Rain fell on six days—the total precipitation was .482 inch, and the maximal fall in 24 hours was .213 inch on Sunday.

Much quieter, colder, and—on the whole—finer weather was experienced in the second week, (9th–15th inclusive). Atmospheric pressure ranged high, and the wind was generally light and variable, except in the extreme west of Ireland and of Scotland, where it blew freshly from S. or S.W. on several occasions. At the beginning of the period, an anticyclone came in from the Atlantic, causing calms and frost on Sunday, with much fog at night. Next day this system moved eastwards to Great Britain, and an irregular depression encroached on the Irish coast, resulting in cloud and rain with a rise of temperature. For some days an anticyclone held over the Continent, the North Sea, and Great Britain, while depressions skirted the W. of Ireland on their journey northwards. On Friday, a new high pressure system showed over Donegal, afterwards spreading eastwards; so that on Saturday light northerly winds and cool fair weather prevailed. In Dublin the mean height of the barometer was 30.245 inches, pressure varying from 30.047 inches at 9 a.m. of Tuesday (wind S.E.) to 30.542 inches at 9 p.m. of Saturday (wind N.W.). The mean temperature deduced from



readings of the dry bulb thermometer, taken daily at 9 a.m. and 9 p.m., was  $40.8^{\circ}$ ; that deduced from the daily maxima and minima was  $41.4$ . Temperature rose to  $49.5^{\circ}$  in the screen on Tuesday (wind S.E.); and fell to  $28.1^{\circ}$  on Monday (wind calm). Rain fell on three days to the amount of .333 inch, the largest fall in 24 hours being .193 inch on Monday. Hail fell on Tuesday morning. There were dense fogs on Monday and Friday. A solar halo was seen on Saturday.

At first fine, cool, and quiet, the weather became very wet, mild, and squally in the third week, ending Saturday, the 22nd—an anticyclone giving place to a series of deep depressions, which travelled in a north-easterly direction across Ireland, the Irish Sea, and Great Britain. On Sunday afternoon a light canopy of lofty cirrus cloud reflected the sunlight for nearly an hour after sunset, and subsequently a "glory" and "corona" appeared round the moon. Two quiet, fine days followed; but on Wednesday the weather broke, becoming mild and rainy. In the evening rain fell heavily, in and about Dublin, owing to a cold draught of air connected with a small subsidiary depression over the Irish Sea. The rainfall at Monkstown, Co. Dublin, was no less than 1.650 inches. In the city, .680 of an inch was measured, but in the Phoenix Park only .350 of an inch of rain fell. Thursday was fine, but on Friday a very deep depression advanced from S.W., the barometer falling below 28.50 inches near the centre of the system. Fresh S.E. gales and heavy rains resulted, and at night a distinct lunar rainbow was seen. Saturday was a showery day, the wind backing from S.E. to N.N.E. In Dublin, the mean height of the barometer was 29.637 inches—pressure ranging from 29.565 inches, at 9 a.m. of Sunday (wind W.N.W.), to 29.686 inches at 3 p.m. of Friday (wind S.E.). The mean temperature deduced from readings of the dry bulb thermometer, taken daily at 9 a.m. and 9 p.m., was  $43.1^{\circ}$ . The highest shade temperature was  $51.0^{\circ}$  on Wednesday (wind S.); the lowest was  $31.2^{\circ}$  on Tuesday (wind S.W.). The arithmetical mean of the daily maxima and minima was  $43.0^{\circ}$ . Rain fell on four days, the total measurement being 1.581 inches, of which .680 inch fell on Wednesday, and .610 inch on Friday.

As regards the fourth week (23rd–29th, inclusive) the weather was at first changeable, and on Christmas Day rain fell heavily in showers, the barometer making only 29.154 inches at 3 p.m. The last three days were very fine, and the week closed with clear skies and frost. Sunday was dull and damp; at night temperature rose to  $50.6^{\circ}$ —the highest for the week. Monday was clear and bracing. Tuesday (Christmas Day) was ushered in by a bright "foreglow" at 8 a.m. and rainbow in the N.W. Drizzling showers and squalls from S.W. afterwards occurred. Next day was fine, bright, and cold; the thermometer did not rise above  $39.7^{\circ}$ . At night a new depression came in suddenly from the Atlantic and the wind freshened from S., with rain (.948 inch). Thursday proved fine in Ireland, but rainy and stormy in England. Faint lightning was seen in the S.E. from Dublin towards evening. Friday was fine, although cloudy at times. Towards evening the sky cleared and frost set in. Saturday was fair and frosty. In Dublin the mean height of the barometer was 29.600 inches—pressure ranging from 29.154 inches at 3 p.m. of Tuesday (wind S.W.) to 30.194 inches at 9 p.m. of Saturday (wind N.W.). The mean dry bulb temperature at 9 a.m. and 9 p.m. was  $40.1^{\circ}$ , while the arithmetical mean of the highest and lowest daily readings of the thermometer was  $40.9$ . Temperature rose to  $50.6^{\circ}$  on Monday (wind S.W.), and fell to  $31.3^{\circ}$  on Saturday (wind W. to N.W.). Rain fell on three days to the amount of .476 inch, of which .328 inch was measured on Tuesday. Lightning was seen on the evening of Thursday, the 27th, and there was a thick hoar frost on Saturday, the 29th.

On Sunday, the 30th, keen frost prevailed—the highest temperature being  $30.7^{\circ}$ . A vapour fog came on in the afternoon. A thaw ensued on the forenoon of the 31st, and towards evening some rain fell.

The rainfall in Dublin during the year ending December 31st has amounted to 23.673 inches on 190 days, compared with 16.601 inches on 160 days during the same period in 1887, and a twenty-three years' average of 27.673 inches on 194.4 days.

At Greystones, Co. Wicklow, the rainfall in December, 1888, was 5.46 inches, distributed over 15 days. Of this quantity 1.08 inches fell on the 25th, .86 of an inch on the 21st, and .75 of an inch on the 19th. Since January 1, 34.54 inches of rain have fallen at Greystones, on, however, only 138 days.

#### RAINFALL IN 1888.

At 40 Fitzwilliam-square, West, Dublin.

Rain Gauge.—Diameter of funnel, 3 in.; Height of tap—Above ground, 3 ft. 2 in.; above sea level, 57 ft.

Month.	Total Depth.	Greatest Fall in 24 hours.	Number of Days on which 11 or more fell.	Month.	Total Depth.	Greatest Fall in 24 hours.	Number of Days on which 11 or more fell.
	Inches.	Depth.	Date.		Inches.	Depth.	Date.
January, . . .	1.947	.310	2nd	August, . . .	1.270	.215	18th
February, . . .	1.009	.175	24th	September, . . .	.478	.038	6th
March, . . .	.973	.103	11th	October, . . .	2.237	.431	9th
April, . . .	1.985	.942	30th	November, . . .	4.949	1.120	31st
May, . . .	.929	.303	28th	December, . . .	9.951	.480	24th
June, . . .	2.048	.081	27th	Total, . . .	23.673	-	-
July, . . .	1.946	.080	27th				190



The rainfall was almost exactly one inch in excess of the average annual measurement of the twenty-three years, 1865-87, inclusive—viz., 27.673 inches.

It will be remembered that the rainfall in 1887 was very exceptionally small—16.601 inches, the only approach to this measurement in Dublin being in 1870, when only 20.859 inches fell, and in 1884, when the measurement was 20.467 inches. In seven of the twenty-three years in question the rainfall was less than 26 inches, and in 1884 it was 26.614 inches.

The scanty rainfall in 1887 was in marked contrast to the abundant downpour in 1886, when 32.966 inches—or so nearly as possible double the fall of 1887—fell on 230 days. Only twice since these records commenced has the rainfall in Dublin exceeded that of 1886—namely, in 1872, when 35.546 inches fell on 238 days, and in 1880, when 34.512 inches were measured on, however, only 188 days.

In 1888 there were 190 rainy days, or days upon which not less than .01 inch of rain (one hundredth of an inch) was measured. This was slightly in defect of the average number of rainy days, which was 194.4 in the twenty-three years, 1865-87, inclusive. In 1868—the warm dry year of recent times—as well as in 1887, the rainy days were only 160, and in 1870 they were only 145. In 1868, however, the rainfall amounted to 24.835 inches, or more than 8 inches above the measurement in 1887, and even in 1870, 20.859 inches were recorded. Included in the 190 rainy days in 1888 are 28 on which snow or sleet fell, and 39 on which there was hail. In February hail was observed on 9 days, in March on 11 days, and in April on 5 days. Snow or sleet fell on three days in January, on 11 days in February, on 10 days in March, and on 2 days in both April and November. Thunder and lightning occurred on nine occasions during the year—once in May, thrice in June, twice in July, once in August, and twice in November.

The rainfall was distributed as follows:—6.097 inches fell on 41 days in the first quarter, 6.016 inches on 46 days in the second, 5.879 inches on 44 days in the third, and 10.687 inches on 59 days in the fourth and last quarter.

Of the 10.687 inches which fell in the last quarter of the year, 6.540 inches were measured in November.

*Abstract of Meteorological Observations taken at Dublin (40, Fitzwilliam-square, West), during the Year 1888.*

Month.	Abs. Max.	Date.	Abs. Min.	Date.	Mean Daily Max.	Mean Daily Min.	Rainfall.	Rainy Days.	Mean Height of Barometer.	Highest Pressure.	Date.	Lowest Pressure.	Date.
	°		°				Inch.		Inch.	Inch.		Inch.	
January, . .	48.9	25th	27.3	28th	47.2	47.9	1.947	8	30.242	30.468	12th	29.738	2nd
February, . .	51.4	2nd	34.6	16th	47.5	46.5	1.987	14	30.118	30.348	26th	29.785	11th
March, . . .	59.3	6th	37.7	17th	48.9	46.9	2.754	18	30.148	30.461	21st	29.588	26th
April, . . .	67.1	24th	37.5	9th	51.0	47.4	2.932	17	30.102	30.390	9th & 26th	29.717	10th
May, . . .	69.7	7th	36.9	4th	57.9	46.3	4.978	11	30.108	30.428	12th & 26th	29.700	1st
June, . . .	77.4	26th	47.3	14th	67.3	57.4	2.744	12	30.148	30.365	18th	29.742	11th
July, . . .	68.7	21st	47.9	11th	67.7	57.8	2.661	23	30.147	30.178	12th	29.700	2nd
August, . .	71.4	7th	48.9	16th	66.9	57.0	2.279	13	30.047	30.260	21st	29.700	2nd
September, .	69.3	9th	37.5	21st	60.1	49.7	7.91	18	30.179	30.358	9th	29.770	11th
October, . .	67.8	27th	37.7	2nd	48.6	47.4	1.987	14	30.098	30.407	21st	29.700	2nd
November, .	69.9	10th	37.6	26th	57.3	47.9	6.440	24	30.192	30.188	22nd	29.079	27th
December, .	59.9	2nd & 15th	37.3	25th	48.5	47.9	2.911	17	30.148	30.393	24th	29.680	15th
Extreme, Year, and Month.	79.4	June 26th	24.6	Feb. 16th	56.0	46.9	Inch. 10.687	Days 180	Inch. 30.108	Inch. 30.468	Jan. 12th	Inch. 29.588	March 26th
48.7													



ANNUAL OF METEOROLOGICAL OBSERVATIONS MADE AT 40, FINELOAN-SQUARE, WEST, LONDON, DURING THE YEAR 1885, BY J. W. MOORE, Esq., M.A.,  
 Vice Sec., R.A.S.P., F.R.S. Soc. Sec.

Long. 4° 10' W.; Lat. 51° 30' N.; Height above Mean Sea Level, 24 feet; Thermometers, 4 feet above ground; Rain Gauge, 3 feet above ground.

DATE.	Hour Previous to zero.	Air Temperature.										Surface of Ground.			Surface of Water.			Snow-FALL.			WINDS.							Fog.									
		Mean of					Air Sea.		Sea.			W.	S.	E.	N.	W.	S.	E.	N.	Direction of Force of							Direction of Force of										
		Day.	Night.	Mean.	Max.	Min.	Temp.	Wind.	Temp.	Wind.	W.									N.E.	E.	S.E.	S.	S.W.	W.	N.W.	N.	N.E.	W.	N.W.							
		Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.	Temp.	Wind.						
January.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
February.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
March.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
April.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
May.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
June.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
July.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
August.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
September.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
October.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
November.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
December.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Yearly.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Annual Mean.	1885.	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12



TABLE showing the Monthly and Yearly Rainfall at Dublin during the Twenty-one Years 1868 to 1888, inclusive; with the Means for the Twenty Years 1868 to 1887.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Yearly Rainfall.
1868.	12.00	12.10	12.00	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1869.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1870.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1871.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1872.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1873.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1874.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1875.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1876.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1877.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1878.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1879.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1880.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1881.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1882.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1883.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1884.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1885.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1886.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1887.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
Means.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10
1888.	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10	12.10

\* July, 1868, and June, 1877, were the driest months of the twenty-one years. † December, 1877, was the month of the heaviest rainfall.  
 ‡ July, 1871, was the wettest month of the twenty-one years. § Heaviest rainfall in 24 hours—9.71 inches, on October 21st, 1878.

TABLE showing the Monthly and Yearly Number of Rainy Days\* at Dublin during the Twenty-one Years 1868 to 1888, inclusive; with the Means for the Twenty Years 1868 to 1887.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Rainy Days.
1868.	12	14	11	13	10	6	18	11	11	15	19	27	169
1869.	16	18	17	14	19	11	6	10	21	11	17	20	186
1870.	14	13	11	8	14	6	6	7	11	10	11	18	148
1871.	20	18	13	20	9	16	12	12	10	16	14	15	181
1872.	28	20	21	13	25	19	12	17	22	22	24	24	228
1873.	21	8	20	8	17	15	25	28	18	16	14	7	189
1874.	14	12	12	16	14	6	19	17	16	22	13	15	158
1875.	23	17	14	12	35	18	14	14	24	26	13	15	206
1876.	6	25	25	17	8	14	10	14	17	20	22	12	135
1877.	25	19	20	21	18	13	25	24	10	18	22	17	229
1878.	20	14	17	18	23	16	6	22	16	16	11	19	200
1879.	19	28	15	17	23	24	24	28	18	14	10	10	206
1880.	8	17	15	20	9	16	24	10	18	12	20	16	153
1881.	14	25	17	18	15	21	15	21	19	16	15	15	180
1882.	17	25	17	20	18	25	25	11	18	20	24	21	227
1883.	20	17	13	20	18	18	20	14	14	18	13	15	183
1884.	18	20	17	11	18	10	25	8	14	14	14	20	187
1885.	23	16	18	18	28	8	15	14	28	23	17	15	198
1886.	26	18	15	18	21	15	18	18	25	24	23	21	220
1887.	25	11	18	10	20	15	25	12	15	11	14	13	180
Means.	17.8	18.7	18.1	14.4	18.7	14.6	17.2	18.0	19.2	17.7	17.4	17.2	158.0
1888.	9	14	18	17	11	18	22	13	10	15	24	17	190

\* A day on which at least one drop of rain fell within the 24 hours. † Driest months of the twenty-one years. Rainfall—7.11 inch and 7.00 inch respectively. ‡ Wettest month of the twenty-one years. Rainfall—6.50 inches. § Month of the heaviest rainfall—7.40 inches.



TABLE showing the Temperature of the Air in Dublin in 1888, and the Average Temperature for the Twenty Years 1868 to 1887, inclusive, as recorded by Dr. J. W. Moore.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1868, . . .	41.9	45.1	45.3	45.8	54.9	58.0	61.7	59.4	53.8	48.9	42.7	45.1	50.4
1869, . . .	43.4	48.9	49.0	49.1	47.6	54.5	61.9	58.8	53.0	51.1	44.5	39.1	49.6
1870, . . .	40.7	39.0	42.3	48.8	53.9	58.1	62.1	59.0	53.1	49.4	41.5	39.7	49.0
1871, . . .	37.8	48.5	45.6	48.7	53.6	58.5	59.5	60.6	52.6	49.7	43.8	41.4	46.5
1872, . . .	41.6	45.2	55.1	47.3	46.3	55.2	61.5	58.9	54.5	48.5	43.3	41.4	49.0
1873, . . .	42.9	37.1	39.0	43.8	50.7	57.9	60.2	59.2	50.0	57.1	45.1	44.7	48.9
1874, . . .	43.6	51.5	48.8	49.2	49.9	58.6	60.6	54.0	54.9	49.5	45.4	39.1	49.2
1875, . . .	45.5	40.0	48.1	49.4	52.7	58.5	57.0	59.0	57.2	48.6	43.4	40.4	49.3
1876, . . .	42.3	41.6	40.3	49.9	49.4	50.7	60.7	59.9	51.0	53.4	42.6	44.0	49.1
1877, . . .	42.8	45.9	41.4	45.5	48.7	57.0	57.6	57.0	52.4	50.1	45.0	41.5	48.7
1878, . . .	42.4	49.9	43.6	47.8	53.4	57.2	61.0	59.4	55.6	50.7	37.9	35.0	48.4
1879, . . .	34.7	32.5	41.0	43.7	47.6	54.9	59.5	56.0	52.5	43.0	42.1	37.0	46.4
1880, . . .	38.0	44.2	44.4	46.8	51.0	56.6	57.0	60.8	57.8	44.5	43.4	41.9	48.9
1881, . . .	32.4	36.8	43.6	44.7	52.5	56.5	59.0	56.0	58.4	47.0	49.4	39.5	47.7
1882, . . .	43.9	46.4	45.0	46.0	50.0	54.7	58.5	58.2	53.6	49.3	42.7	37.4	48.6
1883, . . .	43.4	42.8	38.0	45.5	50.6	55.3	58.9	54.0	54.0	49.0	43.5	40.5	49.2
1884, . . .	44.8	49.4	44.5	43.0	51.5	56.0	56.7	60.5	56.9	45.5	42.0	40.5	49.5
1885, . . .	40.5	43.7	42.7	42.5	47.4	54.0	59.3	55.9	53.9	44.6	39.1	41.2	47.6
1886, . . .	37.1	50.9	40.5	42.1	49.9	53.3	59.3	59.3	53.4	51.2	49.7	37.0	47.9
1887, . . .	40.7	41.0	40.5	43.9	50.4	50.9	62.4	59.0	53.0	48.5	43.9	39.1	49.9
Average, . .	40.9	45.4	45.7	46.4	50.7	55.9	58.7	58.1	54.7	48.7	42.4	39.9	46.7
1888, . . .	41.8	47.3	39.0	44.7	51.2	52.1	56.0	57.0	53.4	45.4	39.5	42.7	47.6

N.B.—The temperatures given above were deduced from the maximal and minimal readings of the Thermometer by Reaumur's Formula, viz.—  
 $\text{min.} + \frac{1}{2}(\text{max.} - \text{min.}) \times 1.1 = \text{Mean Temperature.}$



Desires: Printed for Her Majesty's Stationery Office,  
By ALLEN TREN & Co. (Limited), 57, 58, and 59, Abney-street.  
The Queen's Printing Office